Monica Thielking · Mark D. Terjesen
Editors

Handbook of Australian School Psychology

Integrating International Research, Practice, and Policy

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Preface

'Growing up' for many young people can be both rewarding and challenging. In the time that it takes for children to mature and to independently enter the world as adults, the education system has had many years of precious opportunities to inspire, guide, shape and even repair young lives. This Handbook is dedicated to those individuals who work both in schools and alongside schools and who strive to educate and instil a sense of hope, meaning and purpose in children and young people. It is for those individuals who make the process of growing up easier and who never stop believing in the power that education has to transform lives. We hope that the vast amount of research evidence, intervention strategies and practice wisdom contained within this Handbook will greatly benefit the work of all school psychologists. In putting this Handbook together, we were overwhelmed by the multispecialist nature of this role, evidenced by the number of topics covered. We are fortunate to have so many experts in Australia and internationally that contribute knowledge and research evidence to ensure students are receiving the best possible service to meet their needs. School psychologists are such an important resource for students, parents, teachers and school leadership alike. It is our hope that the Australian school psychology profession will continue to thrive in future research, practice and policy and it is exciting to present this first Australian Handbook of School Psychology to the school psychology profession.

Hawthorn, VIC, Australia — Monica Thielking
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Vale Virginia Smith Harvey and Antony Kidman

Sadly, Professor Emerita Virginia Smith Harvey died on August the 4th 2016. Thus her contribution to the chapter on supervision and self-care in this volume was, we believe, the last publication in her illustrious career. As ever, her collaboration in the creation of the chapter was marked by her open, cooperative and supportive nature, in addition to her scholarship. Her continuing legacy for school psychologists is her very substantial contribution to the academic and professional understanding of supervision of psychologists in schools. She will be greatly missed.

The authors of Evidence-Based Assessment and Intervention for Oppositional Defiant Disorder and Conduct Disorder in School Psychology wish to acknowledge the outstanding legacy of their professional colleague and friend, Dr Antony Kidman. Dr Kidman was to be a co-author of this chapter before his sudden death in September 2014.

Foreword

This book has been a long time coming for psychologists who work in schools.

Every school day, school psychologists across Australia deal with complex moral, ethical and just plain tricky issues as they support children and young people with their learning and their lives. There are a number of journals and papers, including guidelines from the Australian Psychological Society, which support psychologists with the complexities of working with young people in our schools. However, until now, there has been no single text in Australia that combines relevant evidence-based research in the field with school psychologist practitioner expertise and which offers sound advice about best practice for school psychology. The *Handbook of Australian School Psychology*: *Integrating International Research, Practice, and Policy* offers practical strategies for school psychologists and gives the opportunity for clinicians to reflect on their practice.

The years that young people spend at school are critical in determining many of their life pathways. During the early years, students establish the foundation skills of literacy and numeracy that form the basis of future learning. They also learn the skills for successful social relationships. They learn to navigate the world of their peers as they move towards the community outside of school. It is often during the years at school and early adulthood that emerging mental health difficulties become apparent and young people can learn strategies to manage social and psychological difficulties. The role of the school psychologist is critical in supporting children and young people at each stage of their development.

School psychologists also provide expert knowledge to support teachers and school staff in their work. Research indicates that a psychologist who is a part of the school staff and who is embedded in the culture of a school is able to assist children and young people in ways that are not available to a clinician who is only seeing the student outside school.

The *Handbook of Australian School Psychology* explores these various roles of the school psychologist. It also reviews the history of school psychology within Australia, in the context of international trends in research and practice. The ethical questions and practice issues that arise when psychologists work with young people in schools are explored. Primary prevention and school-based programmes that contribute positively to mental health outcomes for children and young people are also described in detail. A series of case studies provide a helpful guide for clinicians, giving them the opportunity to reflect critically on their own work.

Australian school psychologists work in a range of different school environments, from large suburban schools to small schools in rural and remote regions of Australia. They are employed in a number of different systems, including government schools, Catholic schools and independent schools, with each system having its own culture and employment conditions. They work with students across a wide developmental spectrum, from kindergarten to young adults. However, irrespective of the setting or the age of students, there are underlying principles of educational and developmental psychology and a common body of research and experience that informs this work. The *Handbook of Australian School Psychology* brings this together in one single book for the first time.

Thielking and Terjesen have identified the key areas in the work of school psychologists, and each of these has been addressed in chapters written by Australian and international experts in the field. Theoretical perspectives based on the latest research are balanced with practical applications aimed at supporting clinicians in their day-to-day work. There are a section devoted to learning disorders and an extensive section detailing best practice in supporting students who are experiencing mental health disorders within the school setting. The text also explores best practice in the support of specific student cohorts such as students from disadvantaged backgrounds, gifted students, gay and lesbian youth and students with medical issues including sleep problems. There is also a chapter on new technologies and their impact on assessment, training, service delivery and possible accompanying ethical issues.

The final chapter explores future directions for school psychologists throughout Australia. The authors discuss the need for increased recognition of the profession, for the use of a consistent title throughout the country and for a dedicated postgraduate school psychologist training programme designed to develop a set of core competencies, such as those set out by the Department of Education, Western Australia. The authors also discuss inconsistencies across Australia in the eligibility criteria for assistance for students with a disability. The assessment of students for these programmes often dominates the work of school psychologists, limiting the diversity of their role, the time available for early intervention programmes and the development of professional competencies among practitioners. The authors make several recommendations about how to address this difficulty. They also discuss the skill sets that may be required by school psychologists in the coming years and the need for ongoing professional development.

This *handbook* will provide school psychologists across Australia with access to the latest research and information about best practice interventions and will support consistency in the work of psychologists in schools in all sectors, states and territories. It will certainly become an essential reading for all of us who work with children and young people in the school setting.

Emerson School, VIC, Australia Susan Whitelaw, B.A. (Hons). Dip. Ed. Prim. M.Psy. M.A.P.S. C.E.D.P.

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About the Editors

Monica Thielking worked for over 10 years in Melbourne secondary schools as a youth worker, career counsellor and school psychologist. In 2006, after completing her professional doctorate in counselling psychology focusing on the role of school psychologists, she accepted the position as the Australian Psychological Society's national advisor to Psychologists in Schools where she provided professional guidance, led advocacy campaigns, developed landmark resources, chaired the APS National School Psychology Reference Group and founded and convened the APS Psychologists in Schools Interest Group. Dr Thielking's appointment at Swinburne University of Technology in 2010 facilitated her research and teaching on issues around school psychology, youth homelessness, student equity and ethical psychological practice. In 2015, Dr Thielking was appointed the director of postgraduate studies in the Department of Psychological Sciences and convenes a unit on ethical and professional psychological practice. Dr Thielking's work has had significant impact on government policy, service delivery and school psychology practice, and she regularly presents at national and international conferences. Dr Thielking currently holds the position as programme chair of the Division 52 (International Psychology) of the American Psychological Association. She is also a member of the editorial board for the *Journal of Psychologists and Counsellors in Schools*.

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Michael E. Bernard is an honorary professor of the Melbourne Graduate School of Education, University of Melbourne, and is an emeritus professor of California State University, Long Beach. He helped develop the first educational psychology master's degree programme in an education faculty in Australia. His programme, You Can Do It! Education, a school–home collaborative social and emotional learning programme, has received critical acclaim from educational authorities and teachers and is used in more than 6000 schools across Australia, New Zealand, Singapore, the UK, the USA, Canada and Romania. More than 1,000,000 students have participated. An author of more than 50 books on topics associated with student achievement, wellbeing, work performance, procrastination, resilience, parenting and rational emotive therapy, he consults with businesses, schools and government. Michael E. Bernard, PhD, is an international leader in the field of human performance. He is at the forefront in creating state-of-the-art programmes that challenge traditional learning methods.

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Alina Agiurgioaei Boie is a bilingual school psychologist working for Greenwich Public Schools in Connecticut. She earned her school psychology master and doctoral degrees from St. John's University, New York. She has coordinated cross-cultural research projects and presented at conferences worldwide on topics including the role of cognitive beliefs in social–emotional wellbeing, cultural factors associated with emotional distress, bullying prevention and school safety climate issues. Alina is trained in the REBT clinical approach and accumulated counselling and is experienced in behaviour intervention through working in public schools. Alina's clinical work focuses on the application of empirically validated treatments for anxiety, aggression, substance abuse, ADHD and depression, and interests include expanding REBT intervention's applications to disadvantaged young children and their families. Alina is a member of the APA, the Association for Behavioural and Cognitive Therapies and the National Association of School Psychologists.

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Marilyn Campbell is a professor in the School of Cultural and Professional Learning, Faculty of Education at Queensland University of Technology. She currently lectures in the master's of education programme and in the master's in educational and developmental psychology. Marilyn has worked as a teacher and psychologist in early childhood and primary and secondary schools. She has also been a teacher–librarian, school counsellor and supervisor of school counsellors. Her research interests are in behavioural and emotional problems in children and adolescents. Her recent work has included research into anxiety prevention and effects of bullying and especially cyberbullying in schools. She has authored over 100 publications and is the recipient of a number of professional awards, as well as over a million dollars in grants. She is a practising psychologist and psychology supervisor. She is the author of the Worrybusters series of books for anxious children.

Laura C. Chezan, PhD, BCBA-D, LBA, is a tenure-track assistant professor of special education in the Communication Disorders and Special Education Department in Darden College of Education at Old Dominion University. Her research interests focus on communication interventions, single-case research methodology and positive behaviour support for individuals with autism and significant intellectual disabilities. Dr Chezan has published several journals including the *Journal of Behavioral Education*, *Focus on Autism and Other Developmental Disabilities*, *Assessment for Effective Intervention* and *Behaviour Modification*. She has been the recipient of several personnel preparation and research grants. She serves on the editorial board for the *Focus on Autism and Other Developmental Disabilities* and the *Journal of Behavioral Education*. Dr Chezan has given presentations at national and state professional conferences.

Catherine Cook-Cottone, PhD, is a licensed psychologist, a registered yoga teacher, an associate professor at SUNY at Buffalo and an associate editor of *Eating Disorders: The Journal of Treatment and Prevention*. She is also the founder of Yogis in Service, a not-for-profit organisation that provides yoga to those who would not otherwise have access. Her research specialises in embodied self-regulation (i.e. yoga, mindfulness and self-care) and psychosocial disorders (e.g. eating disorders). She has written four books and over 50 peer-reviewed articles and book chapters. Her most recent book is titled *Mindfulness and Yoga for Self-Regulation: A Primer for Mental Health Professionals*. Presenting nationally and internationally, Catherine uses her model of embodied self-regulation to structure discussions on empirical work and practical applications. She teaches courses on mindful therapy, yoga for health and healing, self-care and service and counselling with children and adolescents. She also maintains a private practice.

Erika Crawford is a second year doctoral student at Temple University, working with Dr Philip Kendall in the Child and Adolescent Anxiety Disorders Clinic. She graduated from the University of Virginia in 2010 with a BA in Cognitive Science. Following graduation, she was a research assistant in the Neurology Department at UVA studying executive functioning and then spent 2 years as a research assistant at the University of South Florida's Rothman Center for Paediatric Neuropsychiatry studying behavioural treatments for children with anxiety, OCD and related disorders. She is currently interested in the dissemination of evidence-based interventions and predictors of treatment outcome.

Kendall Jeffries DeLoatche is a graduate from the University of South Florida, where she received her PhD in school psychology and specialised in paediatric school psychology, early childhood and prevention practices. She is currently practising as a school psychologist for Hillsborough County schools in Tampa, Florida.

Tamara Del Vecchio is an associate professor of psychology at St. John's University, where she teaches in the school psychology PsyD and clinical

psychology in counselling psychology programmes. She has a PhD in clinical psychology from Stony Brook University, New York, USA. Her primary area of research relates to the role of cognitions and affects as predictors of poor parenting practices. She has published several papers and book chapters on this topic and other topics related to parenting, parent–child relationship and the development of externalising behaviour problems. She currently leads the Child and Family Research Group at St. John's University. She also has extensive experience supervising therapists delivering parenting and family interventions to families with young children.

Raymond DiGiuseppe received his PhD from Hofstra University in New York in 1975. He was elected a fellow of the American Psychological Association through the divisions of clinical psychology, school psychology, society for the advancement of psychotherapy and family psychology. He has published *Understanding Anger Disorders* and the Anger Disorders Scale (for adults) and the Anger Regulation and Expression Scale (for children) and the A Practitioner's Guide to Rational Emotive Behavior Therapy, 3rd Ed. He has served as the president of the Association for Behavioural and Cognitive Therapies (2006) and the Society for the Advancement of Psychotherapy (2014). He is a professor in the Psychology Department at St. John's University and the director of education at the Albert Ellis Institute. He serves as the coeditor of the Journal of Rational-Emotive and Cognitive-Behavior Therapy.

Janine Domingues, PhD, is a clinical psychologist at the Child Mind Institute specialising in providing cognitive behavioural treatments to children and young people struggling with anxiety and mood disorders, behavioural problems and post-traumatic stress disorder. She has a specific interest in helping children and families affected by single and complex trauma and childhood anxiety disorders including selective mutism, separation anxiety disorder, social phobia, generalised anxiety disorder, panic disorder and obsessive–compulsive disorder. She earned her doctorate degree in clinical psychology from the University of Connecticut and her predoctoral internship at the University of Medicine and Dentistry of New Jersey. She has co-authored scholarly articles for several journals and is a member of the APA, the Association of Behavioural and Cognitive Therapies, the Anxiety Disorders Association of America and The National Child Traumatic Stress Network. She is passionate about providing comprehensive evidence-based treatments to help families develop a sense of resilience, strength and hope.

Kristene Doyle, PhD, ScD, is the director of the Albert Ellis Institute (AEI), the director of clinical services, the founding director of the Eating Disorders Treatment and Research Center and a licensed psychologist at AEI. During her 14-year tenure at AEI, she is also a diplomate in rational–emotive and cognitive–behaviour therapy and diplomate board member and an adjunct professor at St. John's University in both clinical psychology and school psychology doctoral programmes. With a distinguished international presence of conventions, workshops and professional trainings, Dr Doyle has influenced

the growth and practice of RE and CBT globally including South America, Europe, Asia and Africa. Her clinical and research interests include eating disorders and weight management, RE and CBT treatment of children and adolescents and cognitive behavioural therapeutic process, outcome and dissemination. Dr Doyle is the co-author of A Practitioner's Guide to Rational Emotive Behavior Therapy, 3rd edition. She is the coeditor of the *Journal of Rational-Emotive and Cognitive-Behavior Therapy*.

Gabriella Duke is a certified school psychologist completing her doctoral degree in school psychology at St. John's University. Ms. Duke is also currently pursuing certification as a Board Certified Behaviour Analyst (BCBA). Ms. Duke has conducted extensive research on international and cross-cultural assessment, presenting these results at conferences both nationally and internationally. Ms. Duke was awarded the Psi Chi Graduate Student Research Grant in Spring 2015 for her current research on the standardisation of the WISC-V in Vietnam. Ms. Duke's clinical interests focus on the evidence-based assessment and treatment of children and adolescents with externalising and neurodevelopmental disorders.

George J. DuPaul is a professor of school psychology in the Department of Education and Human Services at Lehigh University. He has extensive experience providing clinical services to children with attention deficit/hyperactivity disorder (ADHD) and their families as well as consulting in school districts regarding the management of students with ADHD. He has written or co-authored over 190 journal articles and book chapters on ADHD and paediatric school psychology and published nine books and two videos on assessing and treating ADHD. He serves on the editorial boards of several journals, and his accolades include: School Psychologist of the Year (Pennsylvania, 1999) and APA Division 16 School Psychology's Senior Scientist Award (2008), and he was named to the Children and Adults with ADHD Hall of Fame (2008). Currently, he is investigating the effects of early intervention and school-based interventions for students with ADHD and also the assessment and treatment of college students with ADHD.

Chelsea Eacott is an educational and developmental psychologist currently working as a lecturer at the University of Melbourne and as a school psychologist. Chelsea completed her doctorate in educational psychology in 2008 and has research interests in adolescent mental health and wellbeing with a particular focus on rural populations. Chelsea has over 10 years of practical experience working as a psychologist within government, Catholic and independent school systems in Victoria and Queensland across both regional and metropolitan areas. Chelsea holds endorsement in the area of educational and developmental psychology and is a board-approved supervisor.

Sue Edwards is currently a practitioner school psychologist of the Northern Territory Department of Education and has 23 years of experience working across a range of contexts from urban to regional and very remote schools.

Sue currently works mostly in remote and very remote indigenous community schools. Prior to commencing as a school psychologist, Sue was a primary schoolteacher for 7 years in the Northern Territory. In addition to being a registered psychologist and registered teacher, Sue has postgraduate qualifications in special education and language studies (teaching English as a second language). Sue Edwards has presented at national and international conferences on topics focused on indigenous assessment. She has been the Northern Territory representative on the Australian Psychological Society National School Psychology Reference Group and the Australian Guidance and Counselling Association. Sue Edwards is a member of the Australian Psychological Society.

Katie Eklund is an assistant professor in the school psychology programme at the University of Missouri. She received her doctorate in counselling, clinical and school psychology from the University of California, Santa Barbara. Dr Eklund has worked in public education for over 10 years as a school administrator, school psychologist and school social worker and is a nationally certified school psychologist and licensed psychologist. Dr Eklund has authored a number of publications on childhood risk and resiliency factors, including early identification and intervention for behavioural and emotional concerns, school climate and positive psychology. Her teaching interests include school-based academic and behavioural interventions, crisis response and intervention as well as school-based consultation and problem-solving skills.

Maurice Elias is a professor of the Psychology Department, Rutgers University, and the director of the Rutgers Social-Emotional and Character Development Lab (www.secdlab.org). He has received American Psychological Association awards for Distinguished Contribution to Practice, Ethnic Minority Mentoring, and National Psychological Consultants to Management, and the Character Education Partnership's Sanford McDonnell Award for Lifetime Achievement in Character Education. Books include the new e-book, *Emotionally Intelligent Parenting*, a book for young children: *Talking Treasure: Stories to Help Build Emotional Intelligence and Resilience in Young Children*, S*chools of Social-Emotional Competence and Character*, *The Other Side of the Report Card*, a guide for how schools and districts can integrate social–emotional and character development systematically into their ongoing student report cards (Corwin), and *Urban Dreams: Stories of Hope, Resilience and Character* (2008, Rowman and Littlefield). He writes a blog on social–emotional and character development (SECD) for the George Lucas Educational Foundation at www.edutopia.org.

Michael Faulkner's career began as a classroom teacher in 1970. Subsequently, he qualified and worked as a school psychologist for 16 years. The early 1990s provided him with broader experience, via the management of student special need educational services and as a school principal. As a 'latter-day' academic at La Trobe University, between 1997 and 2014, he taught and researched the special need education area. Dr Faulkner maintains

long and strong research interests in school psychology. This interest was initially framed by undergraduate studies in sociology, by his master's studies in educational sociology and by his entry into the profession. His doctorate (1994) provided a historical and ethnographic exploration of the relationship between societal change, government schooling and the development of the school psychology profession in Victoria State. Through national and international conference presentations and book and journal publications, Dr Faulkner continues researching aspects of similar interrelated issues.

Tina Fersterer is a psychologist with extensive experience supporting children and young people with disabilities and/or special learning needs. After 10 years of working in intensive early intervention programmes for children with an autism spectrum disorder, Tina moved into the education sector where she spent a further 10 years working both as a psychologist and team leader with a focus on behaviour support and autism spectrum disorders. In addition to direct client services, Tina has worked collaboratively across government, Catholic and independent educational sectors in developing whole school practices to support all students, including those with social–emotional needs, behaviours of concern and disabilities. Tina now brings this experience to her private practice where she is passionate about developing and applying effective interventions to support the psychological wellbeing of children, their families and schools.

Joseph Ferrito earned his doctorate from the Graduate School of Applied and Professional Psychology at Rutgers University. He is a native of Monroe, New Jersey, and a graduate of Marist College. Clinically, J.J. worked across levels of care ranging from public schools to inpatient facilities with children, adolescents and families, particularly those exposed to trauma. He completed an APA-accredited internship at Sharp HealthCare in San Diego, California, and is currently a postdoctoral fellow at the Audrey Hepburn Children's House at Hackensack University Medical Center. J.J. taught undergraduate courses and conducted research through the Social–Emotional Learning Lab under the mentorship of Dr Maurice J. Elias. Developing feasible methods for assessing SEL and related skills in schools has been a focus of this research, and this work has generated publications in various forms. He hopes to combine this work with his interest in trauma and resiliency to enhance evidence-based methods of prevention and promotion on a national level.

Caroline de Fina is a registered psychologist experienced in the assessment and support of children with autism from early intervention to high school years. Caroline holds a master's degree in educational and developmental psychology from Monash University, Melbourne, and master's of cross-cultural child development from Brunel University London. Caroline is the current clinical director of Best Start Clinic and provides services in private practice and local schools in autism and mental health work. Caroline is also a certified therapist and professional trainer in the Early Start Denver Model and a member of the Australian Psychological Society.

Dawn P. Flanagan is a professor of psychology at St. John's University, New York, and an assistant clinical professor at the Yale Child Study Center, Connecticut. She teaches in the areas of cognitive assessment, specific learning disabilities and professional issues in school psychology, whilst also serving as an expert witness, an SLD consultant and a test/measurement consultant and trainer for organisations worldwide. She has widely published books, chapters and articles. She is a fellow of the APA and a diplomate of the American Board of Psychological Specialties. She recently received the national Outstanding Contributions to Training award from the Trainers of School Psychologists in recognition of her widespread and influential training for school psychologists throughout the country and abroad. Dr Flanagan is best known for the development of the cross-battery assessment (XBA) approach and the development of an operational definition of specific learning disability—the dual discrepancy/consistency 'PSW' approach to SLD identification.

Paul Flatau is the director of the Centre for Social Impact at the University of Western Australia. He is widely published across the fields of youth unemployment, poverty, labour economics, economics of social policy and history of economic thought. Most recently, he has focused on housing and homelessness and on examining the effectiveness of programmes and interventions in these fields.

Jeffrey Froh has been an associate professor of psychology at Hofstra since 2006, having previously taught at various colleges and practised as a school psychologist in Long Island. He received his MS and PsyD degrees in school psychology from St. John's University and his bachelor's degree from St. Joseph's College. Dr Froh is a New York State certified school psychologist, a New York State licensed psychologist, an associate fellow of the Albert Ellis Institute and an associate editor for *The Journal of Positive Psychology*. Dr Froh is the co-author of *Making Grateful Kids: The Science of Building Character* (Templeton Press, 2014) and coeditor of *Activities for Teaching Positive Psychology: A Guide for Instructors* (American Psychological Association, 2013). In 2011, he received a 3-year $1-million grant to study gratitude in children and adolescents. His research has appeared in media such as *The Wall Street Journal*, the *Los Angeles Times*, *The Washington Post* and *The Huffington Post*.

Nora Gerardi is an advanced doctoral candidate in school psychology at St. John's University in New York. She earned her undergraduate degree in psychology from the University of Connecticut and her master's degree in school psychology from St. John's University. Nora completed a school psychology externship within the Ardsley Union Free School District in Ardsley, New York, and she is currently a psychology extern at Cognitive and Behavioral Consultants in White Plains, New York. Nora is an active member of the Association for Behavioural and Cognitive Therapies (ABCT), where she has presented research on suicidal behaviours, non-suicidal self-injury

and dialectical behaviour therapy. Her dissertation examines the suicide risk assessment and management practices among psychologists.

Kevin Glasheen has over 20 years of practical experience working in the field of guidance and counselling. He has worked as a secondary school guidance counsellor within Queensland Government schools as well as has a period of employment as a middle school counsellor in Washington State, USA. Prior to moving into the area of guidance, Kevin's career began in Catholic education as a primary schoolteacher and later as a school principal. His interest in exploring alternative ways of delivering guidance services and counselling, especially to adolescent males, has grown out of this experience and his earlier research into adolescent perceptions of counselling. His PhD focused on the potential and possibility of using online counselling within the school setting. He is currently teaching in Master of Education (school guidance and counselling) at Queensland University of Technology in Brisbane, Australia.

Michael S. Gordon is a child psychiatrist and the unit head of the child and adolescent stream in Early in Life Mental Health Service (formerly CAMHS) and acting unit head for perinatal psychiatry at Monash Health. He completed his clinical doctorate in the area of adolescent depression and has a strong clinical and research interest in adolescent depression and anxiety disorders. He has published a number papers and book chapters in the area of adolescent depression. Dr Gordon is also an adjunct clinical associate professor at Monash University and is currently involved in a number of collaborative research projects with Monash University.

Matthew J. Gormley is a graduate student at Lehigh University in Bethlehem, PA, and is currently completing his predoctoral internship at the Munroe Meyer Institute in Omaha, Nebraska. Mr. Gormley has experience providing school- and clinic-based assessment and intervention to children with a range of internalising and externalising disorders, with a focus on ADHD and disruptive behaviour disorders. He has been author or co-author of 15 journal articles and book chapters and presented at multiple national conferences. His primary interests relate to the development and implementation of interventions and service delivery methods to ensure continuous high-quality support for individuals with ADHD through both major and minor transitions across the lifespan.

Christopher Gostelow is the manager of the School Psychology Service within the Department of Education, Western Australia. His involvement with suicide prevention activities dates back to the 1980s, having provided direct counselling, assessment and intervention for suicidal people. His master's degree thesis on suicide prevention and the need for school personnel training led to an appointment with the Youth Suicide Advisory Committee, where he wrote the Gatekeeper Training Program and Associated Manual. He also facilitated workshop programmes across Australia and in 1993 was awarded a Churchill Fellowship to investigate suicide prevention approaches

in the USA and Canada. He maintains a strong motivation to support young people at risk of suicidal behaviour, for upskilling and consulting to the professionals who work with these young people and for supporting their families. He is a member of the Ministerial Council for Suicide Prevention and leads projects focusing on suicide prevention in schools.

Christina Grice received her master's in clinical psychology at St. John's University and is currently working towards her PhD. Ms. Grice has experience implementing behavioural parenting interventions and trauma-focused interventions with children and families. Her research interests are in evidence-based interventions for children and families, with an emphasis on parent–child relationships.

Coosje Griffiths is manager of Complex Learning and Wellbeing in the Department of Education, Western Australia. She has worked in public education as a teacher, school psychologist, senior school psychologist and area manager. She was awarded a Churchill Fellowship to study bullying in schools in the USA, Canada, the UK and Norway. Coosje has worked collaboratively with researchers on numerous research projects and publications on a range of topics including bullying, violence, school safety and alternative education. She has instigated and managed numerous initiatives including alternative education, school climate, SEL, bullying, positive psychology and mindfulness. Coosje is on the executive of the state and national school psychology associations and previously the International School Psychology Association. Coosje is on the National Centre Against Bullying (NCAB) board and national committee (SSSC) to counteract bullying and violence.

Stephanie Guedj is a graduate student in the doctor of psychology programme at Nova Southeastern University (NSU) and the graduate assistant at the Office of Suicide and Violence Prevention (SVP). Stephanie completed a master of science degree in clinical psychology at Nova Southeastern University and a bachelor of arts degree in psychology at the University of Miami. As SVP's graduate assistant, Stephanie delivers presentations on suicide and violence prevention to students and staff at NSU as well as manages SVP's quarterly newsletter.

Virginia Smith Harvey, PhD is professor emerita of counselling and school psychology programme at the University of Massachusetts, Boston. Prior to joining the faculty of UMass Boston in 1993, she worked 18 years as a school psychologist in Nashua, NH, and Hammond, IN. She has served on numerous key committees including the Futures of School Psychology (2002), the NASP Professional Standards Revision Task Force (2007–2009) and the Graduate Education Task Force (2011–2016). She has published articles and chapters in *Professional Psychology: Research and Practice*, *School Psychology Review*, *Psychology in the Schools*, *Best Practices in School Psychology*, *Helping Children at Home and School*, *Evidence-Based Practice in Infant and Early Childhood Psychology*, *Encyclopedia of School Psychology* and the *APA Handbook of Testing and Assessment in Psychology*.

Dr Harvey has co-authored *Fostering Independent Learning: Practical Strategies to Promote Student Success* (2007, Guilford) and *Professional Development and Supervision of School Psychologists: From Intern to Expert* (2008, Corwin/Sage and NASP).

Karyn L. Healy is a psychologist with extensive practical experience in supporting schools, parents and children in preventing and addressing bullying and resolving conflict. She has a master's degree in organisational psychology specialising in social consultancy, conflict resolution and group facilitation. She worked as principal project coordinator for many years leading a major initiative supporting implementation of a whole-school conflict resolution approach in schools in South East Queensland. Karyn developed the Resilience Triple P programme, for families of children bullied at school, in collaboration with supervisor Matthew R. Sanders, as part of her PhD. She has an ongoing role in staff wellbeing for Queensland Department of Education and a programme development role with Parenting and Family Support Centre, University of Queensland, and is an associate editor of *Journal of Child and Family Studies*.

Sheryl Hemphill is professor of psychology in the Faculty of Health Sciences, Australian Catholic University. She has conducted research on the development and prevention of externalising behaviours including violence, bullying and antisocial behaviour in young people. She has over 165 publications and conference papers and has held grants from Australia's ARC and NHMRC and the USA's NIH. She is an investigator on the International Youth Development Study, a 12-year-long study of young people in Victoria and Washington State. Her longitudinal research on cyberbullying is at the cutting edge of this field. She is an invited member of the National Centre Against Bullying. She has uniquely demonstrated using prospective data the negative impact of punitive school discipline approaches on student outcomes. She is a member of the APS's College of Health Psychologists and registered with the Australian Health Practitioner Regulation Board.

Keith C. Herman, PhD, is a professor in counselling psychology and school psychology at the University of Missouri and codirects the Missouri Prevention Center. In addition to his background in counselling psychology, Dr Herman completed respecialisation training in school psychology at the University of Oregon. He presents nationally and has published over 90 peer-reviewed articles and chapters and four books. Much of his work focuses on the prevention and early intervention of emotional and behaviour disorders and on working with teachers and families to promote effective environments for children.

Emma Leah Hettrich is a school psychologist within the Commack School District in New York and an adjunct professor within the School Psychology Department at St. John's University in New York. She earned her PsyD and MS in school psychology from St. John's University. Over the last few years, Dr Hettrich has been involved in several projects on the island of St. Maarten,

including evaluations of children with disabilities and training teachers and staff on specific assessment and behavioural techniques. She has also provided training in Vietnam on the administration of the WISC-V. Dr Hettrich has presented at national conferences on cognitive, academic and behavioural assessment results with culturally diverse populations. Dr Hettrich currently serves on the board of the New York Association of School Psychologists (NYASP).

John D. Hogan is a professor of psychology at St. John's University and a licensed psychologist in New York State. His major areas of research interest are the history of psychology, international psychology and developmental psychology. He is the coeditor/co-author of three books; has written more than 200 chapters, articles, book reviews and encyclopaedia entries on various topics; and has presented more than 150 papers at professional meetings. Dr Hogan is past president and fellow of APA Division 1 (Society for General Psychology) and APA Division 52 (International Psychology) as well as a fellow of APA Division 2 (Teaching of Psychology) and 26 (History of Psychology). He is also the section editor in charge of history and obituaries, for the *American Psychologist*. He has been active in many professional organisations and held offices in the APA, the Eastern Psychological Association, the NY Academy of Sciences and the New York State Psychological Association.

Jamie M. Howard, PhD, is a clinical psychologist in the Child Mind Institute's Anxiety and Mood Disorders Center and director of the Center's Stress and Resilience Program. She specialises in the evaluation and treatment of anxiety and mood disorders in children and adolescents and has expertise in treating post-traumatic stress and adjustment disorders across the lifespan. Her past work includes developing and testing programmes to help in returning veterans and their family members, being a crisis counsellor in the aftermath of the World Trade Center attacks and providing consultation to staff at a preschool for at-risk children. She has co-authored scholarly articles for journals as well as book chapters on helping children and families following trauma exposure. Dr Howard completed her doctorate at Northwestern University, her clinical psychology predoctoral internship at the Boston Consortium and her postdoctoral training at the National Center for PTSD, where she worked as a clinical researcher.

Jennifer L. Hudson is a clinical psychologist and researcher at the Centre for Emotional Health in the Department of Psychology, Macquarie University. Her research focuses on understanding the factors that contribute to children's emotional health and improving the services available to children suffering from anxiety and other emotional disorders, as well as their families. Hudson co-authored the book Treating Anxious Children and Adolescents: An Evidence-Based Approach (2000) and edited *Psychopathology and the Family* (2006).

Courtney Huguenin is a school psychologist in the Connetquot Central School District in New York. Prior to becoming a school psychologist,

Courtney worked as a special education teacher for the New York City Department of Education. Courtney earned her MA in educational psychology from Teachers College, Columbia University, and her MS in school psychology from St. John's University. She is a recipient of the 2015 NYASP Ted Bernstein Award, which is awarded to individuals who demonstrate excellence in their third year ex/internship in school psychology. Courtney has presented at national and state conferences on topics such as writing disorders, behaviour progress monitoring and competency to stand trial evaluations.

Shelley Hyman is the director of the Sydney Cognitive Development Centre. She has a master's in clinical neuropsychology from Macquarie University and is an endorsed clinical neuropsychologist in the Australian Health Practitioner Regulation Agency. She obtained her PhD in 2004 from the University of Sydney in medicine (paediatrics and child health). Dr Hyman has studied, published and presented at a number of national and international conferences on topics that include ADHD, ASD, learning disabilities and cognitive profiling of neurogenetic disorders. She is a member of the Australian Psychological Society and the International Neuropsychological Society. Her work at the Sydney Cognitive Development Centre predominantly caters to children with ADHD, learning disorders and a range of neurological and neurodevelopmental disorders. Her current research involves studies into the accurate diagnosis of ADHD as well as the development of cognitive training programmes for children with attention, working memory and executive disorders.

Kate E. Jacobs, B.A., Post.Grad.Dip.Psych., Ph.D/M.Psych., M.A.P.S., M.C.E.D.P. is an educational and developmental psychologist, lecturer and researcher in the Faculty of Education at Monash University, Melbourne. In addition to psychological scale development and validation, Kate's teaching and research interests centre around psycho-educational assessment practices, particularly those related to advancing knowledge surrounding the link between cognitive ability and academic achievement, as well as evidence-based assessment of specific learning disorders. In 2013, Kate was awarded the Monash University Faculty of Education Mollie Holman Doctoral Medal for her PhD, which looked at the validity of self-reports of Cattell–Horn–Carroll cognitive abilities. Kate has presented conference papers, keynote addresses and workshops on Cattell–Horn–Carroll-based educational assessments around Australia.

Laura Jellins is a school psychologist in Canberra, Australia. She graduated in education and psychology at the University of Sydney and is now pursuing a postgraduate degree in clinical neuropsychology at Macquarie University. Laura has worked in primary and secondary schools as well as in early intervention services and is currently based at a specialist school for students with disabilities. As a 2012 Churchill Fellow, she visited school districts and universities across the USA investigating the emerging use of technology to enhance the delivery of psychological services in schools and subsequently presented her findings to colleagues in ACT, NSW, QLD and WA and most

recently at the International School Psychology Conference in Lithuania. Since 2008, Laura has served as a committee member of the Australian Psychologists and Counsellors in Schools (APACS, previously AGCA) association and is now president of the National Executive.

Shane R. Jimerson is a professor in the Department of Counseling, Clinical, and School Psychology at the University of California, Santa Barbara. He is currently president of the International School Psychology Association and previously served as president of the School Psychology (Division 16) of the American Psychological Association. He is also the editor of the *School Psychology Quarterly* journal, published by the American Psychological Association. His scholarly publications and presentations have provided insights regarding developmental pathways of school success and failure, the efficacy of early prevention and intervention programmes, school psychology internationally, developmental psychopathology and school crisis prevention and intervention. Dr Jimerson has over 300 publications, including more than 25 books, and he has presented over 300 presentations in over 25 countries around the world. His scholarship, leadership and advocacy continue to emphasise the importance of research informing professional practice to promote the social, cognitive and academic competence of children.

Tiffany Jones is an associate professor at both the Australian Research Centre in Sex, Health and Society (ARCSHS, La Trobe University) and the University of New England. Dr Jones has published various books on GLBTIQ students, education policy and suicide prevention. Her work is funded by UNESCO, the Australian Research Council, beyondblue and others. She was awarded an APA Scholarship, the Griffith University Medal, an ATLAS Methodological Award and DECRA Fellowship. Dr Jones has liaised with various international and local/state government and nongovernment organisations on policy development around GLBTIQ issues. Her work has contributed towards legislative and policy change in Australian education and beyond. Dr Jones sits on the editorial board of the peer-reviewed journal *LGBT Health*.

Jae Yup Jung, PhD, is an Australian Research Council DECRA Fellow (2013–2016) and a senior lecturer in the School of Education at the University of New South Wales. He is also a senior research fellow at the Gifted Education Research, Resource and Information Centre (GERRIC) at the University of New South Wales. His research programme incorporates various topics relating to gifted adolescents, with a particular focus on their career- and friendship-related decisions. He is a member of the American Educational Research Association (AERA), the Society for Vocational Psychology (SVP), the US National Association for Gifted Children (NAGC) and the Australian Association for the Education of the Gifted and Talented (AAEGT). He has published in a range of journals including *Gifted Child Quarterly*, *Journal for the Education of the Gifted*, *Roeper Review*, *Journal of Career Assessment*, *Journal of Career Development* and *Research in Higher Education*.

Elana Kagan is a second year doctoral student at Temple University where she works with Dr Philip Kendall. She earned her BA in psychology from Yale University in 2010. Following graduation, she worked at the Yale Child Study Center doing in-home therapy with children and families and then spent 2 years as a clinical research assistant at Massachusetts General Hospital in the Pediatric Psychopharmacology group. Her current research interests include understanding factors that predict treatment outcome in youth with anxiety disorders, as well as the dissemination of effective interventions.

John Kelly is a school psychologist in the Commack School District and an adjunct professor at St. John's University in the school psychology programme. He earned his PhD in clinical and school psychology from Hofstra University. Dr Kelly has studied, published and presented at numerous national and international conferences on topics that include advocacy training for school psychologists, leadership development, violence and bullying prevention and suicide awareness. Dr Kelly is on the executive board of the New York Association of School Psychologists (NYASP) and serves on the board of directors as a strategic liaison for the National Association of School Psychologists (NASP). He is the president-elect (2016–2017) of NASP and assumes the role of president of NASP in July 2017. Dr Kelly has received numerous state and national awards, including the NYS School Practitioner of the Year in 2001 and the NASP School Psychologist of the Year in 2003.

Philip C. Kendall a Laura Carnell Professor of psychology and a Distinguished University Professor at Temple University, is a researcher and clinician, with a focus on the assessment and treatment of youth with anxiety disorders. His CV lists over 600 publications, including books, treatment manuals and randomised clinical trials. His treatment programmes (e.g. *Coping Cat*) have been deemed 'empirically supported' and translated into several languages. In a quantitative analysis of the publications by and citations to all members of the faculty in the 157 American Psychological Association-approved programmes in clinical psychology, Dr Kendall ranked fifth.

Kathleen R. King, PhD, NCSP, earned a doctorate in school psychology from the University of Georgia and completed a postdoctoral fellowship with the Missouri Prevention Center at the University of Missouri—Columbia. Dr King is now an assistant professor in the school psychology programme at the University of Alabama. A former school psychologist in rural Georgia, her research centres on prevention, early detection and intervention in the area of behaviour. As such, her research focuses on the development and validation of behavioural observation and screening measures within a broader problem-solving/MTSS framework. In addition to her work targeting student behaviour, Dr King is involved in efforts to evaluate and improve teacher practices in the applied setting. Specifically, this work centres on implementing and evaluating effective classroom behaviour management strategies, as well as training teachers in the use of classroom management to prevent problem in student behaviours.

Mikki Krakauer, MS, is a third year doctoral student in Hofstra University's School-Community PsyD Program. She works in the Laboratory for Gratitude in Youth with Dr Jeffrey Froh, studying the development, measurement and enhancement of gratitude in children and adolescents. She is currently working with Dr Froh on assessing the psychometric properties of a newly developed gratitude scale for children and adolescents. Mikki has presented research at both the American Psychological Association Convention and the International Positive Psychology Association Convention.

Thomas R. Kratochwill is a Sears Roebuck Foundation-Bascom Professor at the University of Wisconsin-Madison, the director of the school psychology programme, a principal investigator in the Wisconsin Center for Education Research and a licensed psychologist in Wisconsin. Tom has written over 200 journal articles and book chapters, authored or edited over 30 books and has professionally presented over 300 times. Tom is a fellow of APA Division 15 (Educational Psychology), 16 (School Psychology) and 53 (Clinical Child) and was named founding editor of Division 16's *School Psychology Quarterly* (1984–1992). His numerous awards include: APA Division 16's Lightner Witmer Award (1977), Senior Scientist Award (1995), Best Article of the Year (1995, 2001, 2002) and the Nadine Murphy Lambert Lifetime Achievement Award (2011) and also the Jack Bardon Distinguished Achievement Award (2005), the Wisconsin's Psychological Association's Margaret Bernauer Psychology Research Award and the Lifetime Achievement Award from the National Register of Health Service Providers in Psychology (2011).

Robyn Kurasaki is an assistant professor at St. John's University and is a school psychologist in a local school district in Long Island, New York. She has worked with school-aged children, conducting psycho-educational evaluations and functional behaviour assessments that are used to inform instruction and management practices in the classroom. In addition to assessment and consultation, Dr Kurasaki coordinates school- and district-wide preventative programming in the area of social–emotional development, while at the individual student level creates behaviour intervention plans and delivers skills training for diverse student needs. She conducts staff development in behaviour management and academic interventions and modifications for students with disabilities.

Amy M. Lampard was a lecturer in the School of Psychology and Speech Pathology at Curtin University. She completed her PhD and master's of clinical psychology at the University of Western Australia and a postdoctoral research fellowship in public health nutrition at the Harvard School of Public Health. Her research has investigated the factors that maintain eating disorder symptoms, the process of client change during treatment and the assessment of eating disorder symptoms and associated psychopathology. In the community context, she has investigated psychosocial factors associated with the use of weight and shape control behaviours among adolescents.

Kristina Langione received her doctorate from the Graduate School of Applied and Professional Psychology at Rutgers University. She has worked to design and implement universal SEL programmes, as well as make mental health care accessible in schools. Her primary research interests include appreciation and gratitude, particularly how they contribute to wellbeing.

Jon Lasser is a professor in the school psychology programme at Texas State University. Before that, he was a school psychologist for Eanes Independent School District. He has authored two books (*School Psychologist as Counselor* and *Professional Ethics in Midwifery Practice*) as well as journal articles and chapters on a variety of subjects including autism, parenting, ethics, sexuality and graduate preparation. A frequent presenter at conferences and workshops, Jon has given invited talks to school districts and professional organisations for over 10 years, presenting on a wide range of topics including ethics, assessment, counselling and consultation. Jon holds a bachelor's degree in Plan II liberal arts from the University of Texas at Austin, a master's degree in human sexuality education from the University of Pennsylvania and a doctorate in school psychology from the University of Texas at Austin. He is a licensed psychologist and licensed specialist in school psychology.

Adrienne Matta is a school psychologist in a public preschool in Wilton, Connecticut. She earned her PsyD and MS in school psychology from St. John's University and her BA in psychology from Cornell University. Her previous research has been on the efficacy of group-based interventions with children and young adults within the school environment. She has also worked with a variety of young children with traumatic brain injuries, many of whom present with visual impairments, but also experience difficulties with cognitive, motor, language and social–emotional development. Her current focus is on early childhood assessment and intervention, with particular focus on identification of autism and behaviour management.

Vicki McKenzie, PhD, is a senior lecturer at the University of Melbourne and is a coordinator of the Master of Educational Psychology and Master of Educational Psychology/PhD. Vicki also has experience as leader of a multidisciplinary team of school support personnel working with schools on systemic intervention in the areas of student and community wellbeing. In her PhD, Vicki studied the resources, resilience and coping skills of disengaged students. Vicki has presented at national and international conferences on building coping skills and resilience in young people. Training psychologists for professional practice in schools has been a central component of Vicki's professional career, and she has also supervised many psychologists in gaining specialised status. She is currently deputy chair of the APS College of Educational and Developmental Psychologists and is a fellow of the Australian Psychological Society.

Lauren F. McLellan is a clinical psychologist and postdoctoral researcher at the Centre for Emotional Health in the Department of Psychology at

Macquarie University. While psychological treatment is effective for many, Lauren's research focuses on identifying how treatment can be improved and greater access to treatment provided for more young people experiencing anxiety and related emotional health problems. She has co-authored a book chapter on interventions for adolescents with social anxiety.

Glenn A. Melvin is a senior lecturer and clinical and counselling psychologist at the Monash University Centre for Developmental Psychiatry and Psychology. He completed his PhD in the psychological and psychopharmacological treatment of adolescent depression at Monash University. Glenn's current research interests include management and prevention of school refusal, suicide prevention and evaluation of treatments for adolescent depression including exercise and transcranial magnetic stimulation. He works clinically with young people and their families in research and private practice settings and teaches medical students health psychology and lifespan development.

Brendan P. Murphy studied medicine in London and psychiatry in Manchester, England. He holds an adjunct position in the Monash University Department of Psychiatry and works in private practice. He spent 8 years at Orygen Youth Health in Melbourne, Australia, before establishing his own youth mental health service in southeast Melbourne. His research output focuses on psychosis including negative symptoms, risk prediction, service development and novel treatments. He is author of *From Sheffield with Love*, charting the history of football, and the young adult fantasy series, *Sebastian and the Hibernauts*.

Rachael C. Murrihy is currently director of the Health Psychology Unit, a child- and adolescent-focused unit, at the University of Technology Sydney. Her specialty is in the area of clinical adolescent psychology. As a practising clinician, she has worked with youth experiencing both internalising and externalising disorders across a diverse range of settings, including the university clinic, private practice, inpatient wards and mainstream and alternative schools. Rachael has ten publications with an adolescent focus and has presented this work at conferences both nationally and internationally. She has coedited a book, *Clinical Handbook of Assessing and Treating Conduct Problems in Youth* (Springer: NY), with Professor Thomas Ollendick and Professor Antony Kidman and co-authored *Moving Forward: Introduction to Psychosis*.

Mandy Nayton is an educational and developmental psychologist and CEO of the Dyslexia-SPELD Foundation in Perth, Western Australia. She is an adjunct research fellow at Curtin University's School of Psychology and Speech Pathology and has worked on a number of projects at Curtin University and the University of Western Australia, including the evaluation of early intervention to prevent literacy failure, the implications of poor working memory on literacy development and the relationship between reading difficulties and low self-esteem. Mandy provides training and supervision to

school psychologists, speech pathologists and teachers throughout Australia. She was a member of both the national Dyslexia Working Party (2010) and the federal Schools Disability Advisory Council (2012 and 2013). Mandy is the current president of the Australian Federation of SPELD Associations and received the 2014 Mona Tobias Award for outstanding services to the understanding of learning difficulties in Australia. In 2016, Mandy was awarded an Order of Australia Medal for her contribution to the fields of education and learning disabilities.

Kathie Newton is a learning disabilities specialist with the Catalina Foothills School District in Tucson, Arizona. She earned her master's degree in special education from the University of Arizona and has taught in a K-5 Resource Room for 12 years. Kathie teaches students with learning disabilities, autism spectrum disorders and attention and behaviour-related disorders. As part of her school's response to intervention team, Kathie collaborates with staff to provide early academic intervention and behaviour supports for at-risk students. Kathie is continuing her education by working towards an EdS degree in school psychology at the University of Arizona.

Kim Van H. Nguyen is a doctoral candidate from the school psychology PsyD programme at St. John's University in New York City, NY, with an expected graduation in 2017. She received her undergraduate degree from the University of California, San Diego, in 2006 and master's degree in psychology at the New School for Social Research in 2010. She earned her master's in school psychology from St. John's University and is a certified school psychologist. In 2015, Kim received the Ted Bernstein Award from the New York Association of School Psychologists (NYASP) for being an exceptional school psychology extern. She completed externships at Valley Stream School District and MercyFirst and is completing an internship at the Robert Louis Stevenson School. Her interests include working with diverse at-risk families of low socioeconomic and immigrant backgrounds. Her dissertation focuses on the adaptation of the Bayley Scales for Vietnam.

Amanda Nickerson, PhD, NCSP, is a professor of school psychology and the director of the Alberti Center for Bullying Abuse Prevention at the State University of New York at Buffalo. Her research focuses on school violence and bullying and building social–emotional strengths of youth. She has published more than 70 journal articles and book chapters, written 4 books and conducted over 250 professional presentations. She is a licensed psychologist, nationally certified school psychologist, fellow of the American Psychological Association and former associate editor of the *Journal of School Violence*. She is coordinator of research for the National Association of School Psychologists School Safety and Crisis Prevention Committee, an author of the PREPaRE School Crisis Prevention and Intervention Training Curriculum and a member of the executive board of the New York Association of School Psychologists.

Lindsay Nicolai earned her PsyD in school psychology from St. John's University. She is a Board Certified Behaviour Analyst (BCBA) and has extensive experience working with school-aged children with a wide variety of learning, behavioural and social–emotional difficulties. Specifically, she has worked with children and adolescents with autism spectrum disorder, emotional disturbances, ADHD and learning disabilities. Dr Nicolai has also taught as an adjunct professor in the areas of scaling and measurement.

Lyn O'Grady is a community psychologist and earned her doctorate in community psychology at Victoria University in Melbourne in 2008. She has a particular interest in the mental health and wellbeing of children, young people and families. Lyn's work history has included roles within the education, health and community sectors. Lyn worked as a school psychologist in the Western Metropolitan Region of Melbourne and has also worked with parents in groups and individually. At a more systemic level, she has been employed by the Student Wellbeing Units of the Catholic Education Office Melbourne and the Victorian Department of Education and Early Childhood Development and is currently the national project manager for KidsMatter at the Australian Psychological Society. Lyn is also a registered supervisor of psychology interns.

Samuel O. Ortiz is professor of psychology at St. John's University. He earned his PhD in clinical psychology from the University of Southern California and holds a credential in school psychology with postdoctoral training in bilingual school psychology from San Diego State University. He has served as visiting professor at Nagoya University, Japan, as Vice President for Professional Affairs of APA Division 16 (School Psychology), as member/chair of APA's Committee on Psychological Tests and Assessment, as member of the Coalition for Psychology in Schools and Education, as representative on the New York State Committee of Practitioners on English Language Learners and Limited English Proficient Students and as member of the APA Presidential Task Force on Educational Disparities. He is an internationally recognised expert on non-discriminatory assessment and evaluation of English learners. He is the primary author of X-BASS, and his recent books include *Assessing Culturally and Linguistically Diverse Students: A Practical Guide* and *Essentials of Cross-Battery Assessment, 3rd Edition*.

Tulio M. Otero is an associate professor in school and clinical psychology programmes at the Chicago School of Professional Psychology. He attained a postdoctoral diploma in clinical neuropsychology from Fielding Graduate University. With such training, he is also a practising school neuropsychologist who has worked with a variety of age groups with a variety of disabilities. Dr Otero has presented at national conferences on neurocognitive assessment and interventions, the fair assessment of Hispanics and cultural competency and has published several papers and chapters on these topics. He has served as past president of the Hispanic Neuropsychological Society and is on the editorial review board of the *Journal of Attention Disorders*, *Journal of Hispanics in Higher Education* and *Revista de Neuropsicología,*

Neuropsiquiatría y Neurociencias. Dr Otero is co-author of the forthcoming Spanish edition of the Cognitive Assessment System 2 and Essentials of CAS2 Assessment. Additionally, Dr Otero is a fourth-degree black belt in tae kwon do and hapkido.

William Pfohl is a professor of psychology at Western Kentucky University, USA, and has been a trainer of school and clinical psychologists for 36 years. He earned his PsyD in professional psychology (school emphasis) from Rutgers, The State University of New Jersey. Dr Pfohl has been president of the National Association of School Psychologists (NASP) twice and president of the International School Psychology Association once. He wrote the technology column for NASP's Communique for 16 years. Dr Pfohl has studied, published and presented at state, regional, national and international conferences on topics of cognitive behavioural therapy, ethics and technology, crisis intervention in the schools and mindfulness. Dr Pfohl is a nationally certified school psychologist (NASP-USA), licensed psychologist (Kentucky) and fellow of the American Psychological Association School Psychology and was awarded the NASP Lifetime Achievement Award (2010). He has a small private practice where he specialises in problems of children and teenagers.

Scott Poland is a nationally recognised expert on school crisis, youth violence, suicide intervention, self-injury, school safety, threat assessment, parenting and the delivery of psychological services in schools. He has lectured and written extensively on these subjects, appeared on all major television news programmes and has presented over 1000 workshops worldwide. He served on the President's Roundtable on youth violence and testified before the US Congress on four occasions. Scott is a founding member of the National Emergency Assistance Team and serves as the prevention director for the American Association of Suicidology. He has led multiple national crisis teams following numerous school shootings, suicides and terrorism acts and in the aftermath of hurricanes and been an expert witness in numerous legal cases. Scott developed and ran ROPES—one of the nation's largest adventure-based counselling programmes. He has received many individual honours including having received the Houston Wage Peace Award.

Katherine Elizabeth Prescott has worked as an educational psychologist for over 30 years in country and metropolitan areas across South Australia and in Toronto, Canada. She has been a manager of psychology and multidisciplinary teams within the government education sector. Interests include disability and learning difficulties; social skills; working collaboratively with children, preschools/schools, families and other providers to improve engagement and learning; culturally appropriate assessment and intervention for refugee and migrant students; and professional supervision and supervision for provisionally registered psychologists. Kate is endorsed with the Psychology Board of Australia in the area of educational and developmental psychology. She is a member of the Australian Psychological Society and has served on the South Australian APS Executive and on the National School

Psychology Reference Group. She is a life member of Australian Psychologists and Counsellors in Schools and managed the national project *Teaching Prosocial Behaviour to Adolescents*.

Robert A. Reeve is associate professor of psychology in the Melbourne School of Psychological Sciences at the University of Melbourne and heads the neuropsychology and cognitive development lab research programme. He completed his PhD at Macquarie University and his postdoctorate at the University of Illinois, where he accepted a faculty position before coming to Melbourne. Dr Reeve has published extensively in the area of children's mathematical development, including understanding the numerical difficulties of indigenous children; identifying the neurocognitive bases of dyscalculia and poor math ability, the origins of math ability in preschoolers; and examining the impact of cognition and emotion on math ability. He discusses the implications of his findings with school, parent and professional groups in Australia and more broadly through his collaborations with researchers worldwide. Dr Reeve is a member of various professional organisations and, with a colleague, co-runs the "Dyscalculia Assessment Clinic" at the University of Melbourne.

Wendy M. Reinke, PhD is a professor in school psychology at the University of Missouri and codirects the Missouri Prevention Center. She presents nationally and has published over 70 peer-reviewed articles and chapters and six books. Her area of expertise is in the prevention of disruptive behaviour in children and youth. Much of her work focuses on consultation with teachers and families to provide effective environments that prevent social, emotional and behaviour problems in youth.

Ken Rigby, PhD, is an adjunct professor in the School of Education at the University of South Australia. He gained an economics honours degree (University of London) and postgraduate certificate in education (Leicester) before immigrating to Australia. He was a primary and secondary schoolteacher in England and in Australia before being appointed lecturer in psychology and research methods at the South Australian Institute of Technology. His PhD in psychology (1977) was from the University of Adelaide, and his research has focused on issues associated with bullying in schools. He has published over 100 papers and authored or co-authored 20 books on school bullying. He has lectured and/or run workshops on bullying in numerous countries worldwide. He has been employed as consultant to the Australian, Victorian and Queensland education departments and as project leader for a study of the prevalence and effectiveness of anti-bullying strategies in Australian schools, published in 2016 (see www.kenrigby.net).

Danielle Ruscio, MS, is a second year doctoral student in Hofstra University's School-Community PsyD Program. She studies positive psychology, with an emphasis on youth gratitude. She currently works in Dr Jeffrey Froh's lab investigating the impact of parenting behaviour on youths' gratitude. She has presented research at both the American Psychological

Association Convention and the International Positive Psychology Association Convention. Danielle anticipates receiving her doctorate in the year 2018.

Stephen Said is head of Student Wellbeing and Pastoral Care for Sydney Catholic Schools. He gives leadership to the development and implementation of student wellbeing policy and services across a system of 150 schools. His role involves identifying relevant resourcing and capacity building issues, developing processes of quality assurance and interpreting current research to achieve synergy of wellbeing and pastoral care activities across the school system. Stephen has 39 years of experience in Catholic education as a teacher, coordinator, school counsellor and university lecturer. He holds a master of education in School Counselling as well as postgraduate qualifications in clinical family therapy, group facilitation and the management of extremely challenging behaviours. Stephen has served as president of the NSW Family Therapy Association and has contributed to the training of Australian Army Chaplains in the area of self-care.

Robin J. Sakakini is a credentialed school psychologist and licensed psychologist in the state of California with her doctorate in psychology from St. John's University in New York. She currently works as a school psychologist in a private school setting with children who have learning differences and concussions and also provides executive functioning interventions. She also has a private practice, Sleepy Kidz (www.sleepykidz.com), where she treats infants, toddlers, children and adolescents with insomnia and circadian rhythm disorders. She has completed research and presented locally and nationally on paediatric sleep problems.

Stephanie Samar is a postdoctoral fellow at the Institute for Girls' Development in Pasadena, California. She earned her PsyD and MS in school psychology from St. John's University and her MA in psychology from New York University. Her early career research has been on the use of empirically based interventions in a school setting and noncognitive factors that contribute to academic success. She was awarded the Lambert/Hyman Scholarship from the American Academy of School Psychology in 2011 and 2014 for her scholarly work as a graduate student.

Matthew R. Sanders is professor of clinical psychology and director of the Parenting and Family Support Centre at the University of Queensland. As founder of the Triple P (Positive Parenting Program), Professor Sanders is a world leader in the development, implementation, evaluation and worldwide dissemination of population-based approaches to parenting interventions. Professor Sanders' work is widely recognised by his peers. He has received the Australian Psychological Society's President's Award for Distinguished Contribution to Psychology (2007), an International Collaborative Prevention Research Award from the Society for Prevention Research in the USA (2004) and a UniQuest Trailblazer Award from the Association for Behavioural and Cognitive Therapies and in 2008 became a fellow of the New Zealand

Psychological Society. Professor Sanders has also won a Distinguished Career Award from the Australian Association for Cognitive and Behaviour Therapy and was named honorary president of the Canadian Psychological Association (2009) and Queenslander of the Year (2007).

Danielle Sauro is a clinical psychology doctoral student at Long Island University—Post Campus. She received her BA in mathematics and psychology from the College of New Jersey in 2010 and her MS in applied psychology from Long Island University in 2014. Her research and clinical interests focus on parent training, behavioural problems in children, school-based mental health interventions, scale development and mental health in twins. In 2012, Danielle co-founded LIU Post's Family Check-In Program, a low-cost, three-session assessment and referral programme for families with children ages 2–7. In 2013, Danielle co-authored a chapter on school-based interventions that assessed academic and mental health outcomes. She completed externships at Children's Specialised Hospital and Nassau University Medical Center in 2014–2015, where she conducted assessments and worked with children in inpatient and outpatient settings with disruptive behaviour, ADHD, anxiety disorders and depression. She began her internship in August 2015 at Astor Services for Children and Families, where she works in the outpatient clinic and day treatment school.

Peter Segal received his PhD in combined clinical/school psychology from Hofstra University. He is a practising school psychologist in New York. Beginning in 1993, his practice has included specialised clinical settings and general education settings. His work has involved children of all ages and abilities. In addition to his practice, Dr Segal has been an adjunct assistant professor at York College, City University of New York, since 1999. Aside from general psychology, his areas of instruction have focused on child and adolescent development, abnormal psychology, theory of personality and parenting. Dr Segal has been involved in multiple international consultation projects within the area of school psychology and special education. These projects have involved collaboration with psychological and educational professionals as well as governmental representatives/bodies to improve service delivery to students and families.

Yaël Seth is a senior school psychologist currently working fulltime in the area of suicide prevention for the Department of Education, Western Australia. She completed a bachelor of science degree with honours in psychology and a graduate diploma in education at the University of Western Australia. Yaël has worked across both primary school and high school settings, providing support in the areas of learning, behaviour and mental health. Her current work focuses on providing professional consultation on suicide-related concerns to school psychologists working for the Department. In addition, she has developed guidelines for school staff on managing social media following a suspected student suicide and responding to student suicidal behaviour and non-suicidal self-injury. In 2014, Yaël was awarded School Psychologist of the Year by the School Psychologists' Association of Western Australia.

Karen Lee Seymour is a senior school psychologist and Intensive English Centre psychologist coordinator consultant with the Western Australian Education Department and has extensive experience in working with CaLD and refugee children and families. She provides high-level consultation to psychologists, teachers and other department staff as well as interagency consultations and offers an extensive range of professional learning for educators to ensure CaLD children learn within a supportive school environment. Karen has recently written a chapter, 'An Integrated Approach to Evaluation and Intervention of Refugee Children', appearing in: *Assessing Bilingual Children in Context: An Integrated Approach* (American Psychological Association). She presented her work in Hawaii in 2013 at the 121st Annual American Psychologist Conference and more recently at the first International Childhood Trauma Conference in Melbourne.

Nina D. Shiffrin is a licensed psychologist and associate research director at Alvord, Baker, & Associates, LLC. She earned her PhD in clinical psychology from Yale University, where she acquired expertise in parent management training, an evidence-based treatment for children with behaviour problems. Dr Shiffrin completed her predoctoral internship at Temple University where she gained experience providing the Coping Cat treatment, a cognitive behavioural therapy programme for children and adolescents with anxiety disorders. Dr Shiffrin has experience treating children, adolescents and adults with a range of clinical presentations in a variety of clinical settings including outpatient, school and intensive outpatient programmes. Dr Shiffrin has co-authored numerous publications on paediatric anxiety disorders. Her current research focuses on evaluating the effectiveness of group cognitive behavioural therapy in schools and other community-based settings.

Rosalyn H. Shute has a BSc from the University of London and a PhD from the University of Wales. Her career has included roles as a university professor and head of psychology and coordinator of postgraduate programmes in educational and clinical psychology. She taught developmental psychology and clinical child psychology, as well as being a registered psychologist providing hospital-based paediatric services. Her primary research areas are child health and peer victimisation. With over 100 publications, she has won national prizes for engaging scholarly writing and linking theory and practice in the area of school violence. She has presented widely in several countries and has been a visiting scholar at the Hospital for Sick Children, Toronto, and at Osaka Kyoiku University, Japan. In retirement, she holds adjunct professorships at Flinders University and Federation University Australia and, with Phillip Slee, has just completed her seventh book.

Jason Skues is a senior lecturer in the Department of Psychological Sciences at Swinburne University of Technology. Dr Skues has a PhD in the area of school psychology where he examined the identification, prevalence and coping behaviours of Australian students with learning disabilities. He has published several peer-reviewed articles relevant to school psychology on learning disabilities, bullying and cyberbullying and the integration of infor-

mation and communication technologies into classrooms. Dr Skues also conducts education and training-related research in forensic and defence settings using quantitative, qualitative and mixed methodologies.

Sue Jennifer Sodeman is both a registered teacher and psychologist. She has worked in multidisciplinary teams providing psychology services to preschools and schools across country and metropolitan locations in South Australia. Her areas of interest include the development literacy and numeracy skills, social and emotional wellbeing and educational policy and professional practice to support the needs of children and young people with disabilities and additional needs. As principal psychologist with the Department for Education and Child Development South Australia, Sue provides professional support to agency psychologists and leads a range of psychology workforce and professional practice strategies. She provides specialist advice and consultancy on resourcing, service standards and operational policy for children and young people with disabilities and additional needs. Sue holds endorsement in the area of educational and developmental psychology with the Psychology Board of Australia and is an executive member of the Australian Psychologists and Counsellors in Schools, South Australia.

Darren Stops is a senior school psychologist with the Department of Education (Tasmania) and has a private practice in Hobart. He was APS state chair and is currently state chair of the College of Educational and Developmental Psychologists. He has been involved with standards and training for psychologists, as a member of the Psychologists Registration Board (Tasmania), and is honorary clinical lecturer with the School of Psychology (UTAS). Darren has served on the Children's Commissioner's Advisory Council, Disability Services Ethics Committee, Australian Education Union State Executive and many review and advisory committees. He was made a fellow of the Australian Psychological Society, in 2010. Darren was a member of the APS National School Psychology Reference Groups (2005–2015), which he chaired from 2011 to 2014 in his role as the national advisor on school psychology to the APS, also contributing to publications, reviews and parliamentary submissions. He is passionate about school psychologists and their effectiveness.

Janene Swalwell is a psychologist (educational and developmental), supervisor and educator who has been in practice for more than 40 years. During that time she has supervised large numbers of psychologists in training as well as many in early and mid-career. Her work has mainly been as a developmental psychologist focused on practice in early intervention and school-based psychology. Recently, she has been providing education, research and supervision support for fourth to sixth year psychology students in the Education Faculty at Monash University. Her supervision experience includes individual and group supervision of psychologists in practice, placement supervision of fifth and sixth year students, development and delivery of master classes for psychology supervisors and research about the supervision

experiences of psychologists in Australian schools (both supervisees and supervisors). Janene also has particular interests in the promotion of social–emotional development, coaching, boundaries between disciplines and promoting transdisciplinary practice.

Megan Sy received her MA in psychology at New York University and her MS in school psychology at St. John's University. She is currently completing her PsyD in school psychology at St. John's University. Her primary interests include neuropsychological assessment, executive functioning interventions and working with parents of children with neurodevelopmental disorders.

Paula Teggelove is a registered psychologist holding qualifications in both primary and secondary education and accumulating more than 18 years of experience in schools, as a school psychologist and educator. As a school psychologist, she has worked extensively with students and their families. She initiated and developed a range of policies and welfare manuals specific to individual schools and developed a number of seminars for teachers and parents about issues regarding the welfare of students. Paula has been extensively involved with curriculum development in psychology in secondary schools and held a number of leadership positions, allowing an excellent understanding of school systems. On her departure from the school sector in 2007, Paula founded Propsych, an organisation dedicated to providing professional and practical support services to school psychologists. Propsych plans, facilitates and coordinates conferences and other professional development events on aspects of student mental health and has grown into one of the leading providers of related professional support services in Australia, both to school psychologists and, more recently, to the broader school staff cohort. Paula currently maintains a private psychology practice, working with children, adolescents, adults and families, as well as providing professional supervision to school psychologists and counsellors.

Michelle A. Tollit is a postdoctoral researcher at Murdoch Childrens Research Institute and the Centre for Adolescent Health, The Royal Children's Hospital, Melbourne. She also currently holds an honorary appointment as a fellow in the Melbourne Graduate School of Education, University of Melbourne. Dr Tollit completed her master's in educational psychology and PhD through the University of Melbourne. She is a registered psychologist. Her PhD explored school problems experienced by young people and the links between low school commitment and antisocial behaviour during the adolescent school years. With over 12 years of research experience across longitudinal and intervention studies, Dr Tollit has developed strong interests in examining educational issues facing students including school disengagement in the adolescent years, bullying and cyberbullying, violence and crime, adolescent health and wellbeing and developmental psychology. She has disseminated research findings on these topics through peer-reviewed publications and conference presentations.

John W. Toumbourou is the chair in health psychology and leader in intervention sciences within the Centre for Social and Early Emotional Development (SEED), both at Deakin University. He has published over 330 papers, 185 in peer-refereed journals, and is a prominent social advocate in child and adolescent mental health promotion and the prevention of alcohol and drug problems. Professor Toumbourou has been influential globally in assisting the development of research and practice in the fields of prevention science and health psychology. He has received international awards for his contributions in these areas and has been influential in reshaping Australian health policies to more effectively address adolescent alcohol misuse and related problems. He serves as chair of the International Committee for the Society for Prevention Research. In 2009, he received the Award of Distinction from the Australian Psychological Society, for his work as chair and as a founding signatory of the College of Health Psychologists.

Hilary B. Vidair is the codirector of clinical training and assistant professor in the clinical psychology doctoral programme at LIU Post. She earned her PhD in combined clinical and school psychology from Hofstra University. She then completed a National Institute of Mental Health (NIMH) Research Fellowship in child and adolescent psychiatry at Columbia University. She is director of LIU Post's Family Check-In, a low-cost assessment and referral service for parents of 2–8-year-olds. She received a National Institute of Health Clinical Research Loan Repayment Award; a NIMH Child Intervention, Prevention, and Services Research Fellowship; and a New York State Office of Mental Health Policy Scholar Award. She serves as the Association for Behavioural and Cognitive Therapies (ABCT)'s membership coordinator and is past president of ABCT's Child and School-Related Issues Special Interest Group. She maintains a private practice in Long Island, specialising in evidence-based therapies for children, adolescents and parents.

Carolyn Waldecker is a school psychologist at The Hagedorn Little Village School, Jack Joel Center for Special Children. She is also a neuropsychologist and codirector of The Hagedorn Little Village Neurodevelopmental Diagnostic Center and an adjunct assistant professor in the school psychology programme at St. John's University. She earned her PsyD in school psychology from St. John's University and completed a 2-year postdoctoral training programme in clinical neuropsychology at Fielding Graduate University. Dr Waldecker has presented at a number of conferences on topics including autism spectrum disorder, executive functioning and cognitive assessment in early childhood.

Grant Wheatley has worked as a classroom teacher, teacher in charge of a programme for emotionally disturbed students, school psychologist and manager of a Centre for Inclusive Schooling. He was a key author of *Building Inclusive Schooling*, the blueprint for a project promoting inclusive schooling in Western Australia. He is currently the principal of the School of Special Educational Needs: Medical and Mental Health and in this role is in charge of over 40 programmes all in partnership with the Department of Health,

which support government and non-government students who face medical or mental health issues. In 2006, he undertook a Churchill Fellowship to research joint service initiatives between the health and education sectors. Since then he has led the development of strategies to increase collaboration between education sectors and health services in Western Australia. In 2010, Grant won the Western Australian Mental Health Good Outcomes Award.

Lorolei White achieved a bachelor of behavioural science with honours in psychology in 1996 before moving to the Northern Territory, Australia, where she became a school counsellor in a rural high school. Over 17 years, she achieved many successes as a school psychologist doing assessments, counselling and training in urban, rural and remote schools across the Northern Territory. Lorelei was integral to coordinating services for autism spectrum disorders, including diagnosis and specialist intervention. She project managed innovative programmes including the development of an equitable and sustainable funding model for students with disability. As a senior school psychologist from 2010, Lorelei provided an extensive consultation service via video link, email, phone and face to face to staff and families supporting students with disability, maintaining a special interest in severe behaviour disorders, autism, the effects of trauma on child development and suicide prevention. Following her retirement, Lorelei continues to supervise and support psychologists in remote Northern Territory.

Camelia Wilkinson is a psychologist in private practice, with 18 years of experience working with children, families and educators. She has earned her qualifications with degrees awarded from Swinburne University of Technology and the University of Melbourne. She is a graduate of the master of educational psychology programme at the University of Melbourne where she is now coordinating the practicum subject for master and doctorate students. Throughout her professional career, Camelia has held positions as a psychologist working in schools (Department of Education), conducting educational assessments (SPELD Victoria) and teaching university students (University of Melbourne). In her private practice, Camelia deals with any number of issues such as learning difficulties and disorders, developmental problems, disability, attention deficit disorder, dyslexia, depression, anxiety, obsessive–compulsive disorder, stress, behavioural management and self-esteem.

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ently a member of the NASP Ethics Advisory Panel. She is the lead author in the 2008 NASP publication, *Professional Ethics for School Psychologists: A Problem-Solving Model Casebook* (2008), and its second edition (2011) co-authored by Leigh Armistead and Susan Jacob. She has presented on the topic of ethical decision-making and NASP Principles for Professional Ethics (PPE) throughout the USA. Barbara chaired the NASP Task Force to Revise the NASP 2010 Standards, including the ethical standards. She is the recipient of the *2011 Lifetime Achievement Award* from NASP conferred at the 2011 NASP Convention in San Francisco, California.

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Edith Wright has cultural links to the Bardi people from the Kimberley region of Western Australia. She has a teaching background, including the role of principal in a large remote community school for 4 years. As the regional consultant of Aboriginal education, she is currently based in the Kimberley Education Regional Office in Broome, Australia. Edie has experience in a range of school context across two education sectors to improve

educational outcomes for children. She provides significant input into policies and programmes on a regional and state level to improve educational outcomes for Aboriginal and Torres Strait Islander students in public schools. Edie is currently involved in international research with the Discipline of Paediatrics and Child Health, Sydney Medical School University, Australia; The George Institute for Global Health, University of Sydney; and Fitzroy Valley Aboriginal organisations in a population-based study into the prevalence of fetal alcohol spectrum disorders in remote Australian Aboriginal communities.

National and International Perspectives on School Psychology: Research, Practice and Policy

Michael Faulkner and Shane R. Jimerson

Understanding "where we are" in school psychology currently, discussing influences on how we got here, and exploring future opportunities are the primary foci of this chapter. Both international and national (Australian) perspectives are included. In the beginning of the twenty-first century, within the international context, school psychology has been described as a specialty that collectively provides individual assessment of children displaying cognitive, emotional, social, or behavioural difficulties; develops and implements primary and secondary intervention programs; consults with teachers, parents, and other relevant professionals; engages in program development and evaluation; conducts research; and helps prepare and supervise others (Jimerson, Oakland, & Farrell, 2007, p. 1).

It is understood that professionals who provide these services use a variety of titles around the world, including counsellor, educational psychologist, professional of educational psychology, psychopedagog, psychologist, psychologist in education, psychologist in the schools, or school psychologist. Across Australia, and despite historical differences in professional nomenclature, it appears that the term *psychologist* is becoming the dominant contemporary title. The term *school psychologist* is used throughout this chapter to refer to these professionals. For those interested in obtaining information regarding school psychology in numerous countries, the most comprehensive and current collection of information is provided in *The Handbook of International School Psychology* (Jimerson, Oakland, et al., 2007), which includes extensive information on 43 countries and self-governing territories.

This chapter provides an overview of school psychology professionals internationally, briefly highlighting some commonly shared themes, variations and diversities, and emerging professional agendas. This chapter also offers a synopsis of contemporary school psychology in Australia, including important contextual considerations, schooling in the Australian context, stakeholders and trends in school psychology, and also commonwealth government initiatives relevant to the profession. The final section identifies some lessons learned from both the international and the Australian context, will also posit some further directions for school psychologists during the next decade, and includes some reflective questions about this chapter's contents at the end.

May as well be here; we are where we are
—Australian Aboriginal saying

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School Psychology Internationally

Contemporary international scholarship reveals evidence of school psychologists in about 80 countries around the world (Jimerson, Skokut, Cardenas, Malone, & Stewart, 2008). Within these countries, school psychologists are typically employed to enhance the mental health and educational well-being of children and youth, their schools, families, and communities (Jimerson et al., 2004, 2006; Jimerson, Grayden, Curtis, & Staskal, 2007; Jimerson, 2008; Jimerson, Alghorani, Darweish, & Abdelaziz, 2010; Jimerson, Annan, Skokut, & Renshaw, 2010). The preparation of school psychologists is commonly informed by their understanding of core domains of psychology that are relevant to understanding learning and development, child psychopathology, and processes that can encourage change (e.g., prevention and intervention). Data reported in *The Handbook of International School Psychology* (Jimerson et al., 2006) and other contemporary sources (Jimerson, Stewart, Skokut, Cardenas, & Malone, 2009) suggest there are between 80,000 and 100,000 school psychologists worldwide, working across approximately 50 countries.

Commonly Shared Themes Among School Psychologists Internationally

The following highlights some commonly shared themes among school psychologists internationally. Whereas a comprehensive review of all themes is beyond the scope of this introductory chapter, Table 1 delineates a breadth of internal

Table 1 Summary of external and internal influences on the profession of school psychology

External influences beyond the direct control of school psychology	
The status of public education	School psychology is typically strong in those countries that have well-established public education systems, including those students with various disabilities
A country's economic vitality	School psychology is strong only in those countries with ample revenue to support both basic public education and additional school psychology services
A country's culture	School psychology is most well-established in countries that value and promote individual differences, a viewpoint that constitutes the keystone of psychology
A country's primary language	English has become the most widely used second language internationally and the most prominent language used within the sciences. School psychology is most well-established in those countries that include English-proficient professionals
Geographic differences	Psychology, including school psychology, develops regionally. School psychology is most well-established in countries that are bordered by countries that have quality school psychology services
National needs and priorities	School psychology services emerge and are sustained only when local and national leaders believe the services are of high quality and needed
Internal influences that are more under the direct control of school psychology	
Promoting professionalism	School psychology is stronger within a country to the extent it has one or more strong professional associations that represents its interests
Expanding services	The specialty of school psychology is most widely established when its practitioners demonstrate a wide range of knowledge, skills, and abilities that enable these practitioners to provide direct and indirect services for students being served in regular and special education programs as well as to address school-wide needs
Codifying the scope of practice	School psychology is well-established in countries that have policies that define the specialty, standards for practice, and preparation programs that maintain high standards
Establishing ethics codes	School psychology is likely to be well-established in countries where professional associations have clearly articulated a code of ethical professional behaviours
Interfacing with education	Strong linkages between school psychology and education, including regular and special education, are associated with more well-established school psychology services

(continued)

Table 1 (continued)

External influences beyond the direct control of school psychology	
Promoting research/ science	School psychology generally is strongest in those countries that have active research agendas that address important national issues
Promoting test development and use	Where services are well-established, school psychologists typically provide an assortment of psychometrically sound testing resources that help to objectify and legitimize their work
Advocating for laws governing practice	School psychology is generally strong in countries that have laws requiring the provision of and financial support for its services

Note: Summary from Oakland and Jimerson (2007, 2008, 2014)

and external influences on the profession of school psychology in many countries around the world (see Oakland & Jimerson, 2014 for further discussion).

Education infrastructure is associated with investment in school psychology. School psychology services are typically more robust and better established in countries with highly developed and legally mandated education systems that provide universal education for all children, particularly in those committed to the provision of special education services for students with special needs (e.g., chronic, severe, and complex learning, behavioural, psychological disorders). School psychology services also are typically more robust within countries with a well-established discipline of psychology and a commitment to the provision of human services. The economic characteristics of countries also appear to be related to the investment in supporting the education of all students.

Urban youth typically have increased access to school psychologists. In countries around the world, school psychology services are typically less well-developed in rural areas, with many rural communities having no access to basic education and health services. Students in urban settings tend to have relatively greater access to psychological support services. This trend is particularly notable in large and sparsely populated nations or in regions within them. Evidence of this comes from the USA with its 35,000 school psychologists; from Canada where the school psychologist ratio varies from about 1:1700 in urban areas to 1:12,000 in more sparely settled regions; in Nigeria where many 'school psychologists' are university based; and from Australia, one of the world's most urbanized nations (Jimerson, Grayden, et al., 2007).

Women are more likely to be school psychologists. The vast majority of school psychologists around the world are women. In most countries, females represent over 80 % of school psychologists (Jimerson et al., 2004, 2006; Jimerson, Grayden, et al., 2007; Jimerson, Graydon, et al., 2008; Jimerson, Alghorani, et al., 2010; Jimerson, Annan, et al., 2010).

Professional organizations are important for school psychologists. The degree to which school psychology is established within a country is often linked to the presence of a strong national association representing the profession. The importance of leadership and professional associations towards advancing the interests of school psychologists is discussed in detail by Jimerson (2014) in an article titled, "*The roles of school psychology associations in promoting the profession, professionals, and student success*".

The presence of national professional associations varies across countries. Some countries have national professional associations devoted to school psychology, while most do not. School psychologists in many countries, especially developing countries, lack a strong organizational advocate. One important function of a strong national professional association is its leadership in facilitating credentialing and licensing of school psychologists as well as statutory provisions for their services.

School psychology is stronger when professionals are certificated or licensed. Legal mandates to be credentialed or licensed help the profession to become established, regulated,

respected, and to ensure high standards for professional practice.

The *preparation of school psychologists varies within and between countries.* For instance, the entry criteria for school psychologists, the length of preparation, the nature and duration of practical, fieldwork, and internship, and the final degree required (e.g., bachelors, masters, specialist, and doctoral degrees) vary across countries.

The roles and functions of school psychologists vary internationally. Whereas core services among school psychologists reported among school psychologists in countries around the world include assessment of children who may display cognitive, emotional, social, or behavioural difficulties; development and implementation of primary and secondary intervention programs; consultation with teachers and other relevant professionals as well as with parents; engagement in program development and evaluation; research; educating those aspiring to enter the specialty and supervising others (Jimerson et al., 2004, 2006; Jimerson, Grayden, et al., 2007; Jimerson, Graydon, et al., 2008; Jimerson, Alghorani, et al., 2010; Jimerson, Annan, et al., 2010), it is understood that the relative amount of time invested in their various services varies considerably between countries.

Assessment is a common professional skill among school psychologists. In countries around the world, the establishment and growth of school psychology is often linked to the professional use of standardized tests. School psychology generally is not well-developed in countries that have few locally developed standardized tests. The lack of affordable and suitable standardized tests represents a primary concern among school psychologists in developing countries.

Variations and Diversities in School Psychology

As briefly discussed above, there are many trends and influences that characterize school psychology across countries; however, there are also variations and diversities in school psychology that reflect local contextual factors (Jimerson et al., 2004, 2006; Jimerson, Grayden, et al., 2007; Jimerson, Graydon, et al., 2008; Jimerson, Alghorani, et al., 2010; Jimerson, Annan, et al., 2010; Jimerson, 2014). Several of these variations and diversities are noted below.

The socio-political zeitgeist of education, local and national legislation, and other contextual and cultural considerations reveal variations in professional practices in school psychology. For instance, in those countries with long established legislation mandating and funding the identification and provision of services for students with disabilities within the schools, the profession of school psychology is more robust (for example, Australia, the United Kingdom, & the United States). In these settings, school psychologists tend to have lower ratios of school psychologists to students, they tend to have access to an array of psychometrically sound assessments, and there is an increasing diversity of roles and responsibilities that continue to emerge in these settings. *The Handbook of School Psychology* (Jimerson, Oakland, et al., 2007) provides contemporary portraits of the profession in 43 nations. A comparison of school psychology in the four small population nations of Finland, Denmark, New Zealand, and Ireland reveal the many similarities, but also striking differences in the socio-political zeitgeist of education in each of these countries, historical and cultural forces that underlie the development, the professional emphases. and the functions and roles of the profession in each nation respectively.

As illustrated in Jimerson and colleagues (2009), analysis of the ratios of school psychologists to students reveals vast variation in countries around the world. It was noteworthy that only 13 countries had ratios of approximately 1:2000 (Australia, Canada, Denmark, Estonia, Israel, Lithuania, Scotland, Spain, Switzerland, Turkey, the United States, Australia, and the Netherlands). Another important finding from that study was that the ratios increase fairly steadily up to 1:10,000 (with Germany at 1:9482), but subsequently there is a large increase up to 1:34,712 in Namibia. The ratios are often larger in countries with emerging services (e.g., Romania, Russia, South Korea) and with lower gross national product. The very large ratios illustrate that there are

many countries wherein few children have access to support services characteristic of those provided by school psychologists in Australia, the United Kingdom, or the United States.

Consideration of the presence of school psychologists reveals that school psychology services are woefully inadequate for the 1.9 billion children in emerging countries (Oakland & Jimerson, 2014). Children under age 18 constitute the largest age group internationally, including 340 million in Sub-Saharan Africa, 153 million in the Middle East and North Africa, 585 million in South Asia, 594 million in East Asia and Pacific, 197 million in Latin America and Caribbean, and 108 million in Central and Eastern Europe and the Commonwealth of Independent States. Globally, the majority of the 2.2 billion children in the world do not have access to school psychology services.

Emerging Professional Agendas for the Twenty-First Century

The following highlights a few topics related to the expanding professional roles and responsibilities of many school psychologists in many countries around the world, including contemporary challenges, preparing to work within increasingly diverse multicultural communities, and the need for ongoing professional development to continue to competently address local and national needs. The chapters featured in the Handbook of International School Psychology provide information regarding emerging opportunities in 43 countries around the world (Jimerson, Oakland, et al., 2007).

The expansion of school psychology roles and responsibilities. In many countries, traditional roles for school psychology (e.g., assessing students referred for behavioural, educational, or mental health problems) are expanding to include more consultative and preventative services. In countries with robust infrastructures for student support services, there is increasing contemporary emphasis on facilitating mental health wellness, well-being, and healthy psychosocial development of children at school. Thus, prevention services, school-wide initiatives, and universal screening for academic and behavioural needs are increasing roles fulfilled by school psychologists. The expansion of services will likely enable many school psychologists around the world to work closer with teachers, parents, and others who work directly with children and may also allow school psychologists to engage more with principals and others to plan, implement, and evaluate school-wide interventions.

Contemporary challenges impacting school psychology have some similarities internationally. School psychologists in many countries indicate the need for further financial support for public school services to students with disabilities. School psychologists in countries that lack federal statutes that mandates for their services and within contexts where special education programs are inadequate report the need for further legislation to support students with whom they work. In some countries, school psychology services are outsourced and school administrators secure services from various specialties (including counsellors, speech pathologists). Employment conditions for school psychologists working in rural areas in many countries face other challenges to support students (e.g. attracting suitably qualified staff locally, small or widely dispersed schools, or heightened ethical challenges of living and working in small communities).

The provision of student support services for diverse populations of children is increasing in countries around the world. As a result of the increased mobility of people, the resulting multicultural composition of the residents in many countries warrants the preparation of school psychologists prepared to work with children from diverse racial, cultural, and linguistic backgrounds. National and international school psychology training standards now highlight the importance of appropriate preparation to prepare professionals to work with multicultural families, staff, and students.

School psychologists around the world will need to be prepared for the shifts in local and national contexts. Professional development and graduate preparation will need to continue to

provide sufficient preparation for school psychologists as the expansion of their roles increasingly emphasizes systems-level consultation, prevention science implementation, universal screening to identify student problems, and progress monitoring to examine the effectiveness of instructional strategies, as well as consultation in selecting empirically supported interventions to address student needs.

Consumer views of school psychologists are important to understand. Previous studies of consumer views reveal that while psychologists' work is valued by teachers and parents, persistent challenges inherent in that work, generate both contradictions and professional challenges. (Farrell, Jimerson, Kalambouka, & Benoit, 2005; Gavrilidou, de Mesquita, & Mason, 1994; Gilman & Gabriel, 2004; Kikas, 1999; McKeever, 1996) An Australian study which investigated attitudes of school psychologists and those with whom they work highlighted the positive value and esteem in which the profession is held, but additionally, the challenges often experienced at the interface between psychologists' work and that of teachers and school administrators, around the domains of preferred practice, policy, and power (Thielking, 2006). An ethnographic and action research-oriented study of the profession, undertaken in the 1980s, similarly explored the tensions between administrative and professional authority for school psychologists, from the perspective of generating change in relation to student development and learning outcomes. (Faulkner, 1992) However, school psychologists do continue to make important contributions to the lives of children, families, teachers, and other professionals who work with them in the school. It is important that relevant research and dissemination continues to understand and highlight the contributions of school psychologists and also to understand shortcoming and future opportunities.

Further research is needed to inform the provision of school psychology services in countries around the world. Given the increasing expansion of the role of school psychology in many countries around the world, it is essential that scholars continue to engage in new empirical endeavours as well as translate contemporary science to practice. There is a crucial need in countries around the world to employ school psychologists in university and school leadership positions, who will actively engage in the production and dissemination of science relevant to informing student support services. As applied scientists, school psychology scholars and leaders serve a critical function to prepare and inform the next generation of school psychologists. High quality contemporary science is essential to the future of the profession of school psychology in all countries throughout the world.

School Psychology in the Australian Context

The Australian research tradition on the developmental aspects of childhood and adolescence, and on family, culture, social context, schooling and the teaching profession, and, the relationship between them, is both extensive and deep. However, the research on the profession of Australian school psychology has long been sparse, and in 2015, continues to remain limited compared to such research in the United States. This is in spite of the presence of psychologists in schools in all government school systems across all states and territories in Australian for almost 70 years now (Faulkner, 2007a), with earlier pioneering work in educational psychology focusing on school settings, stretching back earlier another 30 years (Porteus, 1969).

In 2015, psychologists working in schools account for approximately 10 % of almost 35,000 registered Australian psychologists. While school psychologists must be registered under the national Australian Health Providers' Regulation Agency (AHPRA), and the title 'school psychologist' is allowed to be used to represent the profession, there is no AHPRA-endorsed area of practice in school psychology. Furthermore, there has never been an Australian university professorship dedicated specifically to the school psychology profession, a development that could advance wider dialogue and research about the profession. While some universities have *Australian Psychological Society*-accredited undergraduate programs and specialist postgraduate courses in psychologist preparation, the absence of such professorial

research leadership specific to school psychology contributes to a lack of research on and about the profession and its practices.

What follows here seeks to provide a rationale for why the dimensions of the Australian school psychology profession have come to be as they are and an exploration of some of the current forces influencing school psychology and into the immediate future. Intervention oriented to pedagogic practice, seminally in the area of special needs education, began to influence aspects of schooling in this country. Other contributors in this book address the specificities that constitute the main professional concerns of Australian school psychologists in the early twenty-first century. This chapter provides an overview of the national portrait of the profession at this time. Included also is a perspective on the contemporary schooling context in Australia, the stakeholders impacting the profession, and the influences and related trends as are relevant to school psychology in Australia.

A National Portrait of Australia

Despite its vastness and varied climate zones, Australia is essentially a nation of coast-hugging urban dwellers. In 2015, 60 % of Australia's 23.7 million citizens reside in just five coastal cities, all with populations exceeding one million (Sydney (4.6), Melbourne (4.3), Brisbane (2.2), Perth (2.0) and Adelaide (1.2)). In population, Sydney and Melbourne are larger than all American cities but one (New York). Another 15 % of Australians reside in 15 smaller urban settings, with populations exceeding 100,000 (McCrindle, 2014). Over a century, this pattern has changed little. In 1901, 70 % of Australia's 3.7 million lived in urban centres of 100,000 people or more, and by 2014, urban dwellers, using this same criterion, had increased to 76 % of the national population.

Australia's folklore has long proclaimed a binary life choice for citizens, expressed in the aphorism 'Sydney or the bush,' though urban Australians outnumber greatly those who live in 'the bush' (Watson, 2014). The Commonwealth government's demographic paradigm provides graduations of the 'the bush': Inner Regional, Outer Regional, Rural, Remote and, Very Remote. In de-centralized Queensland and Tasmania, the cities of Brisbane and Hobart contain 46 % and 40 % of their state populations, respectively. In contrast, Melbourne, Perth, and Adelaide each account for approximately 75 % of those states' total population.

In Australia, and internationally, the professional practice of psychology is predominantly an urban phenomenon. Recent demographic data indicates that 77 % of Australian psychologists live in six state capital cities, totalling 14.5 million people, 60 % of the nation's population. This same research indicates an average of 94.7 psychologists per 100,000 people located in major cities. The nation's most concentrated region for psychologists is inner northwest Melbourne, 347 per 100,000. In contrast, Inner Regional areas' number fell to 65 per 100,000, the Outer Regional to 45.5, while the figures for Remote and Very Remote Areas are 38.1 and 11.8 respectively. School psychologist distribution forms part of this wider pattern (Health Workforce Australia, 2014).

Australia's Anglo-Celtic-European-Asian immigration history has had periodic waves since the mid-nineteenth century. The overseas-born component of the national population has varied over time: in 1890, it was around 30 %, by 1910, 20 %, declining to 10 % by 1947, and rising steadily to 26 % in 2014. Immigrant populations have long been drawn to the largest cities. At the 2011 national census, Sydney's overseas-born population was 39 %, Perth's was 37 %, and Melbourne's 35 %, with 30 % of people in inner Sydney were speaking a language other than English at home. (http://profile.id.com.au/sydney/language).

Diverse cultural and linguistic background populations inhabit most state capitals. Between 2001–2011 in Sydney and Melbourne, immigration from the UK and New Zealand were dominant. However in both cities, there were growing birthplace origin rates for people coming from China, India, Vietnam, Philippines, Lebanon, Sri Lanka, Fiji, and Iraq, while in Perth, multinational multi-cultural immigration growth was more modest. In contrast, Hobart has 15 % overseas

born, well below the 26% national average, though exceeding demographic patterns in most regional, rural, and remote areas of Australia.

The Australian continent is home to one of humankind's longest living cultures with archaeological evidence dating back more than 40,000 years. Since British settlement in Australia (1788), long-contested ongoing issues relating to the treatment and dispossession of Aboriginal people persist (Commonwealth of Australia, 1997). At the 2011 census, the number of Australians with Aboriginal or Torres Strait Island heritage was 2% of the national population with most living in the northern and western parts of the continent (Australian Bureau of Statistics, 2012).

Child and family well-being indicators among Aboriginal communities are much poorer than for the general population (Australian Institute of Health and Welfare, 2012). Issues of family well-being, childcare, and educational access and equity are critical, particularly in many remote area communities. One positive recent indicator is the entry of indigenous graduates into the psychology profession, although less than 1% of accredited psychologists come from indigenous backgrounds (Cameron & Robinson, 2013). The *Australian Indigenous Psychologists Association* (www.indigenouspsychology.com.au) provides testimony to this, articulating a professional mission to provide leadership on issues relating to the social and emotional well-being and mental health of Aboriginal origins.

Schooling in the Early Twenty-First Century in Australia

A dominant feature of the Australian school system is its strongly defined sectors, with high rates of non-government schooling in OECD national comparisons. According to the *OECD Education at a Glance Report* (2013) in 2010, 74% of Australia's total educational expenditure on educational institutions came from public sources, considerably lower than the OECD average of 84%. This same OECD source indicates that Australian government schools account for just 61% of primary and secondary school students, compared with 97% of students in Finland, 95% in Germany, and 92% in Canada. According to ABS (2010) data, 40% of school pupils attend non-government secondary schools, a steadily growing trend over the last 20 years. In the decade 2000–2010, the fastest growth was in the independent non-government sector. Table 2 provides a recent Australian Bureau of Statistics (ABS) breakdown of pupil attendance according to school type.

Table 2 School attendance by type 2010 ABS (2011): 4221.0 schools Australia, 2011

School type	Government (%)	Non-government catholic (%)	Non-government independent (%)
Primary	69	19	12
Secondary	61	22	18
Total	66	20	14

One implication of these developments for school psychology has been diversification of conditions of employment and professional services. This includes the expansion of diocese-based specialist services, inclusive of psychologists in Catholic school systems during the past two decades. Such developments have drawn somewhat on prevailing models within the state within which each Catholic school system is located.

The independent school sector includes a relatively small number of large, usually long-established and very well-resourced schools. They employ school psychologists on a full-time or part time basis, typically under commercial-in confidence agreements. The independent sector also includes small, often religious-auspiced schools, where no school psychology service is provided, but where the school may access some pastoral or counselling services from the National Chaplains Program in Schools.

One challenge for school psychologists is the cultural and linguistic diversity in many urban school communities. An international study of 212 Australian school psychologists (Jimerson, Grayden, et al., 2007), revealing just 8% self-reporting competence in a second language,

lower than second or third language-competent school psychologists, surveyed in Germany (77 %), the USA (40 %), and Russia (17 %). ABS 2011 census data recorded that 19 % of Greater Sydney respondents spoke a language other than English at home (Mandarin, Cantonese, Arabic, Korean, Greek, Italian, and Vietnamese the most common).

The Australian-born psychologist rate has remained consistent for 20 years, at 75 % of all registrations. However, there is an encouraging growth in overseas born psychologists from north-west Europe, from sub-Sahara Africa and from southern and east Africa, while British-born psychologists consistently remain a high sub-set of psychologists born overseas (Health Workforce Australia, 2014). While some urban families encourage bilingual fluency, many school-age children are raised in language contexts where parental competency in English is absent. Refugee families and their children provide additional challenges, and community agencies such as *The Victorian Foundation for the Survivors of Torture* (VFST) have emerged to support the work of schools and supplement the work of school psychologists. The VFST is but one example of a wide spectrum of professional agencies with which school psychologists now consult (VFST, 2011).

Stakeholders in the School Psychology Domain in Australia

Australia is a federation of states, and until the 1960s, all aspects of schooling were exclusively a state responsibility. Since then, national governments of different political colours have continuously legislated and funded nation-wide policies and programs to enhance, though sometimes contradict, prevailing education policies in the respective states. It is only in the last decade, however, that national government legislation and policies have had a direct influence on the nature and substance of school psychology practice.

Until 2010, most professional accreditation requirements were state-based, with differing credentialing standards and professional eligibilities. This has resulted in some impediment to psychologists, school psychologists included, in transferring from state to state and limitations on the interchange of professional practice knowledge. In 2010, the national government inaugurated the *Australian Health Practitioners Regulation Agency* (APHRA) and thus began to change. All psychologist specialties, in addition to 13 other health professions, are now regulated under nationally consistent legislation.

Since 1966, the *Australian Psychological Society* (APS) has been the pre-eminent professional body for school psychology, with more than 20,500 members. The APS's Educational and Developmental Psychologist College is one of 15 colleges that members can elect to join beyond basic membership that requires evidence of both higher qualifications and longer supervised experience than is required for basic entry registration. The *Australian Psychological Society* website provides a variety of useful resource material for school psychologists. *Australian Psychologists and Counsellors in Schools* (APACS) with a membership of about 1000 has for 30 years been an important professional association for school psychologist practitioners. The new national body, the *Australian Health Practitioners Regulation Agency* (AHPRA), and professional teacher organizations, which in some states industrially represent school psychologists, are important stakeholders in this profession.

Trends in School Psychology in Australia

Health Workforce Australia provides recent data on the psychology profession. The *Psychologists in Focus* research report (2014) documents three dominant patterns of psychologist employment:

- A steady increase in an increasing predominant female workforce;
- Working in a growing private practice model; and
- Psychologist work was part time.

In 1996, approximately 67% of employed psychologists were female, and by 2012, the percentage was 77%. Illustrative of this is the NSW government system where 89% of the permanent school counsellor workforce in 2011 was female. Other states are similar.

According to this same 2014 Health Workforce research, 35% of employed psychologists worked in sole or group private practice settings, while 11% of registered psychologists in this survey ($N=2364$) reported working from the school settings. Working in a solo or group practice setting does not preclude practitioners from working with or in schools. In fact, specialist psychologist agencies are increasingly contracted-in for specialist purposes, an example being in Victoria and South Australia, for student disability eligibility assessments.

The 2014 *Psychologists in Focus Report* also evidences the trend towards part time work for female psychologists, averaging 31.5 h weekly, while their male counterparts report 36.6 h. While these trends apply for psychologists generally, there is no available evidence that school psychologists differ in these respects from other psychologists, most of who continue to have on-going employment within educational bureaucracies.

In a review of the profession 9 years ago, Faulkner (2007b) identified several emerging trends in Australian school psychology, and in 2015, they remain relevant.

1. A generational change wave of 'first career' psychologists beginning to replace 'second career' psychologists in schools. The above evidence suggests the strong likelihood that of being be female, in part time employment, and increasingly so, likely to be working from private practice settings.
2. An emerging 'market and consumers' model in school psychology that challenges and perhaps also complements the public service school psychology model, now long established in Australia. In this internet-information era, an informing, comprehensive, and easily accessible website has become an essential marketing tool for the new 'army' of independent practice psychologists.
3. While Australian school psychology developed as an educational specialism around the assessment and classification of students, in recent decades, mental health and school organization and well-being issues have assumed more importance.

The growth in registered psychologist in Australia since 2007, particularly clinical psychologists, brings other diverse and specialized perspectives into schools. The *Australian Psychological Society Annual Report* of 2013 (APS, 2013) records the membership numbers of the nine APS College membership categories. In 2013, the College of Clinical Psychology had 5484 members, the College of Educational and Developmental 771 members, and the College of Community Psychology, just 154 members. These figures suggest the directions psychology as a professional practice in Australia is proceeding: historically, school psychology preliminary training was in teacher training; recent patterns seem to herald an increasingly medicalised orientation to Australian school psychology practice.

Commonwealth Government Initiatives and Changes for the Psychology Profession

The early twenty-first century has seen significant national policy developments' impact on the character of the profession, in ways likely to continue in the coming decade.

Medicare and psychologists. The provision of clinical and generalist (health-related) psychology services under the national medical scheme (Medicare) began in 2006. This national Government initiative was a response to the national government's comprehensive *Senate Inquiry into the Provision of Mental Health Services* (2005), and also to the *Australian Psychological Society's* advocacy of such a development for some years. Under the Medicare rebate system, psychologists are funded for up to10 counselling sessions when the student/family member is referred by a medical practitioner. This two-tier Medicare fee structure for clinical

and generalist psychologists is gradually shifting an emphasis in most forms of practice psychology, school psychology included.

Historically, state governments have historically assumed responsibility for all school psychology services. However since 2007, for all school systems, Medicare-endorsed specified psychology services (i.e. when referral to a psychologist by a general medical practitioner, psychiatrist, or paediatrician), supplements existing for school psychology services funding and for schooling jurisdictions, becomes a form of transfer costing to national government. For the profession of school psychology, professional emphases have long been on human developmental and education paradigms and on professional strategies oriented to improve student learning and well-being in social learning contexts. Increasingly, medical perspectives are infusing school psychology services, whenever Medicare funding is utilized. With accredited clinical psychologists, the fastest growing sector with the profession, it is reasonable to expect that clinically oriented psychologists will generate more linkages with schools, their focus being on the mental health issues of children and youth, while such work is funded nationally.

The Psychology Board of Australia (PBA). Under guiding national legislation, the Australian Health Providers Regulation Authority (AHPRA) as a national body commenced operation in July 2010, assuming responsibility for the regulation of 14 health-related professions. As part of AHPRA, the PBA (http://www.psychologyboard.gov.au) has replaced all state and territory psychology boards and now assumes responsibility for four important functions relating to, by June 2014, the nation's almost 32,000 registered psychologists:

1. Registering psychologists and provisional psychologists
2. Developing standards code and guidelines for the psychology profession
3. Handling notifications, complaints, investigations, and disciplinary hearings
4. Assessing overseas-trained practitioners who wish to practice in Australia
5. Approving accreditation standards and accredited courses of study

Among its responsibilities, the PBA consults widely with psychologists, members of the public, and stakeholders on a number of matters relating to the profession. In 2015, the PBA is seeking input on proposals to update the provisional registration standard and the guidelines for the 4+2 internship program. In early 2015, the Board is seeking input on the standard that psychologists must meet for provisional entry into the profession: and the requirements for developing the knowledge, skills, and competence required for entry into general registration via the internship program pathway.

The National Chaplains in Schools Program (NCSP)

Introduced by the national government in 2007, the NCSP has received bi-partisan political support from subsequent national governments. Given the historical statutory status in Australia, that government school education be secular, the NCSP has been a controversial inclusion (Maddox, 2014). Funding is available to any school, and many government schools across the nation have obtained chaplain services. By August 2013, there were 2339 Commonwealth-funded chaplains working across 3541 Australian schools, and in 2014, there was further recurrent funding made available for an expansion of this program and despite a successful High Court challenge by the parent of a student at a government school (McKenzie-Murray, 2014).

Among psychologists, there have been cautionary and/or critical comments about this development. In 2011, the APS urged for clearer boundaries and role delineations be placed around the NCSP. Criticism includes the view that Federal money could be better spent on secular professionals (Asher, 2011). The APACS website (2015) cautions that chaplains are not required to have any particular qualifications, adhere to any professional standards, and are little equipped to work effectively with children

and young people where anxiety, depression, family abuse and conflict, drug alcohol or body image issues, bullying, or suicide are presenting issues. Given the government's initiatives to regulate health professionals through AHPRA, the APACS statement points to a contradiction that those working as chaplains in the NCSP have greatly reduced suitability criterion for working with diverse background children and youth in government schools.

Well-being: A Perennial School Psychology Theme in Australia

While psychometric and educational assessment, report writing and related intervention work with individual students, remains the staple professional agenda of Australian school psychology, recent decades have seen increased school focus on child and adolescent mental health and well-being. In part, this has been a response to demographic and social change, which include familial changes in this same period, the role of the state in child well-being and protection, changes in schooling, pedagogies, and their related instructional technologies, as well as for many middle class parents who choose schooling outside the government sector, a critical consumerist stance towards schooling provision. Across all states, Catholic and independent schools typically attest to well-developed pastoral and well-being cultures and demonstrable curricular and program contributions to student well-being. Many government schools now do similarly.

In some states, within-school counsellors, or teachers with additional qualifications, work closely with visiting psychologists. Since 2005, the APS with Commonwealth government funding has developed the *Kidsmatter* program, an excellent compendium of resources for the early childhood years (http://www.kidsmatter.edu.au/early-childhood), and has a separate program for the primary schooling years. Practitioner networks, school psychologists, social workers, and school staff can draw on this program to work within their school communities. According to the 2013 APS Annual Report, 1400 schools nationalwide had accessed this program.

The *Kidsmatter* program is but one example of well-being programs that acknowledge the dialectic relationship between a school's climate, social structures, parent-community relationships, and individual student well-being. The *Kidsmatter* material includes foci on promoting whole school well-being as well as early intervention positive mental health strategies. Broadly, similar developments are evident in earlier programs, for example the *Mindmatters Plus* initiative (Anderson, Kerr-Roubicek, & Rowling, 2006) and the *Responseability* program (http://www.responseability.org). More recently, a whole-school well-being and positive psychology program, undertaken in a small number of independent schools, under the personal direction of Martin Seligman, subsequently led to an exploration of positive psychology applications at the level of an entire state (Seligman, 2013).

Variations and Diversities for School Psychologists Across Australia

Australia's expanse and climatic diversity and British settlement patterns to manifesting a 'tyranny of distance' with respect to the wider world (Blainey, 2001)—this aphorism was an enduring motif in the development of Australian governance at both the state and national levels. Australia developed as a nation of small far-flung city-states (former British colonies), and from the mid-nineteenth century, even had different width rail gauges on a state-by-state basis, arguably indicative of a national history characterized by regional specificity and idiosyncrasy, less so, national unity. In public sector governance, and specifically in school systems administration, a similar city-state regionalism has long prevailed. The same phenomenon continues, though now moderated by the massive changes in communications technologies. Indicative is that, in 2015, the professional designation of 'school psychologist' continues to vary on a state-by-state basis (see Table 3).

Table 3 APACS summary of school psychology in Australian state school systems (2013)

	NSW	Victoria	Queensland
Eligibility	Teacher qualifications and classroom teaching experience together with APHRA psychologist eligibility requirements	Registration eligibility with APHRA as a psychologist	Full teacher registration plus 2 years supervised experience working with children or youth in an education, child protection, or counselling setting. APHRA psychologist eligibility
Title	School counsellor (school psychologist) or district guidance officer (senior school psychologist)	Psychologist or student support services officer	Guidance officer (GO) and senior guidance officer (SGO)
Location	School-based in host school servicing a district school network, inclusive of pre-schools	School-based in allied health teams servicing groups of primary and secondary schools	School-based. GOs are encouraged to work in either primary or secondary schools
Employment conditions	School hours and conditions as relate to state teaching awards	Public service conditions: 37.5 h week, and 20 days annual recreation leave	School hours and conditions as relate to state teaching awards
Salary range	Up to $ 89,000 (SC) and up to $102,000 (DGO)	Allied health officers (teaching service) range $69,000–$96,000 Education support: psychologists from $54,000 to $84,000	SGOs on the professional officers scale up to $110,000
Supervision structure	School counsellors are administratively responsible to and professionally supported by DGOs, who are in turn responsible to regional managers	Psychologists are administratively and professionally responsible to school principal networks. Profession supervision may be out-sourced	Line management to school principal. Mandatory professional supervision by a SGO
	South Australia	**West Australia**	**Tasmania**
Eligibility	APHRA psychologist eligibility	APHRA psychologist eligibility and a teaching qualification	APHRA psychologist eligibility
Title	Psychologist	School psychologist, senior school psychologist, lead school psychologist (LSP)	School psychologist (SP) Senior school psychologist (SSP)
Location	Regional-office base within multi-disciplinary teams	School-based in host school servicing additional schools	School-based
Conditions	Public sector hours and conditions 37.5 h weekly, 4 weeks annual leave	37.5 h day and 8 weeks annual leave. Required to work 4 weeks during teachers' school vacations	Teacher conditions and pay awards apply
Salary range	$72,000–$104,000	$67,000–113,000 Up to $123,000 (LSP)	$59,000–$86,000 $102,000 for SSPs
Supervision structure	No formal professional supervision structure available, particularly outside Adelaide	Line management provided by Principal in the 'host' school. Professional leadership and supervision provided by the regional LSP	Professional supervision provided by SSPs who are in turn in line management accountability to senior school support personnel

Contrasting the beginnings and differing features of development of psychology services in government schooling in the neighbouring states of NSW, WA, and Victoria is illustrative of Australian state regionalism. In Victoria, in 1913, the establishment of the first government special school provided stimulus to the beginning of an individual assessment and placement tradition (Porteus, 1969). Following the 20-year post-war immigration boom which included intense

(1950–1970) and the related pressures on a burgeoning secondary schooling, a rapid expansion of school psychology services in Victoria occurred from the 1960s. The following three decades then saw school psychology services co-located in non-school professional settings, together with social workers, speech pathologists, special needs educators, and language interpreters, in non-school-based settings.

In the past two decades, following the early 1990s demise of the Victorian comprehensive school support centre services model, and concomitantly, the career structures for non-teaching specialists, a weaker professional support climate for school psychologists came to ensue in Victorian government schooling (Thielking & Jimerson, 2006). Research by Eckersley (2011) investigated school psychology practice in Victorian government schools on an ecological and contextual basis, concluding that non-psychologist management was driving the profession to become little more than an assessment program for special education. She also concluded the limitations placed on school psychologists to be a significant issue in Victoria, noting that this can contribute to professional isolation, unsatisfactory collaboration, and insufficient appropriate professional supervision. All are deleterious to the profession. A similar conclusion about the profession across all school systems in Victoria was that the demand for assessment services limits the development of systemic and preventative practices in school psychology work (Bell & McKenzie, 2013).

In Victorian government schools, school principals have greater managerial autonomy than is the case with their NSW counterparts, which promotes a negotiated contracting-in ethos with respect to education specialists. Thus, a mix of school-based government psychologist employees and contracted-in specialist psychology services currently now prevails. The national Medicare scheme furthers this development within a market-oriented framework with respect to school psychology and specialist services. In 2015, therefore, Victorian school psychologist career pathways are increasingly likely to become more dependent on private practice success than on obtaining professional seniority within a government school bureaucracy. In Victoria, teacher experience or qualifications are no longer mandatory. In contrast, NSW school psychologists still come from the teaching force.

In the 1930s, NSW secondary schooling commenced provided the beginnings of a school guidance movement in Sydney high schools (NSW DET, 2011; Wright, 2012). The vocational guidance and counselling movement expanded combined with new developing psychometric techniques becoming available to psychologists and educators, and the enrolment pressures on secondary schools. Those earliest years of NSW school guidance through to the 1960s placed emphasis on guidance counselling functions directed to transitions from primary schools to secondary schooling (Hughes, 2002). In addition to individual assessment work, group IQ testing in NSW schools was used more extensively than was the case in Victoria.

By 2015 in NSW government system, numerically robust and vertically integrated school psychology services in school-based locations have prevailed for several decades (in contrast to Victoria), a testament to that state's forward planning and commitments since the 1980s. In 2011, according to the NSW government sources, there were 790 full-time equivalent (FTE) school counsellors and district guidance officers employed across the state, representing an average allocation of one school counsellor (school psychologist) to 1030 students across the state. In NSW, contemporary school psychology conveys an ethos of public service provision, and less so, outsourced private specialism. Services are based around district-based clusters of schools, with each school-located professional responsible to a more experienced psychologist (District Guidance Officer). In NSW, each year, small numbers of suitably qualified teachers are selected, drawn from service to re-train to become accredited school psychologists.

This brief contrast between school psychology services in Australia's two most populous states is illustrative of differences elsewhere. School psychology services in other states convey a history of geographical and demographic specificity and political, administrative, and education develop-

ment trends specific to that state. For example, in W.A. the *School Psychologists Association* (SPA) has for decades now worked closely with the teacher unions and with government to maintain a strong school psychologist presence across all districts including the most remote areas of Australia (Thornton, 2007).

While the focus here has been on government-provided education, it is important to acknowledge that in the last two decades the Catholic schooling systems have been growing their own diversities with increased numbers of psychologists employed and differentially deployed. Both Victoria and W.A. have well-developed school psychology services now, while the Catholic Education Office in South Australia buys in psychology services.

Thus in 2015, for the Australian school psychology profession, almost a century since its beginnings (Faulkner, 2007a), despite its rapid nation-wide expansion from the 1950s through to the 1990s, a resilient regional diversity persists nation-wide, symbolically summarized in the various professional descriptors for 'psychologists who work in schools'. Differences transcend professional designation and include school psychologist roles and functions that can reflect regional character, as well as the modes of administrative professional support. Such historical developments have generated implications for all Australian school systems and for ancillary support services to and within school communities. However, the national government initiatives of the last decade are moderating some aspects of long-established professional regionalism. The APACS survey of school psychology across the nation (2013) reveals this influence. Since 2010, across all school systems, and despite some remaining variants (see Table 3), school psychologist employment eligibility is now clearly more framed by the national credentialing body AHPRA.

Since 2007, there has also been a shift in preferred official designation across school systems. The use of 'psychologist' is now more widely adopted officially. It replaces the earlier widely used term 'guidance officer' in some states, something of a euphemism for 'psychologist' in the public and the bureaucratic mind. However, the same term also served as a valued industrial designation for second career school psychologists seeking to have their earlier teacher training and teaching experience recognized for remuneration and seniority purposes within bureaucracies. Indeed, this was the dominant model across most states from the mid-twentieth century until about a decade ago. In 2015, NSW remains the exception in retaining these guidelines. Other state government jurisdictions now increasingly require AHPRA-endorsed 'psychologists' only. Yet in 2015, only in W.A. and Tasmania is the term 'school psychologist' used officially.

Table 3 provides a summary of school psychologist conditions across the six states adapted here from collated data made available by AGCA (now APACS) in 2013. Not included in the summary here are conditions in the Australian Capital Territory and the Northern Territory. Not included either are details of school psychology practice in the Catholic and the independent schools sectors.

Renewing School Psychology for the New Century

By 1915, universal compulsory elementary schooling was finally being achieved and Australian children began formal learning assisted by a slate or personal writing tablet. Their learning world was essentially the classroom with knowledge strongly mediated via their classroom teacher. In 1915, the achievement of universal primary schooling generated new pedagogic issues relating to the sheer diversity of the student group, spawning new needs for specialized professional input and differential educational provision. Therein lay the beginnings of the Australian school psychology profession.

In 2015, all Australian beginning students can now expect a minimum of 12 years of formal schooling, and for most, continuing educational pathways into their 20s. Formal schooling is now a 15–20 years human life stage, not for 6 or 8 years as was the case for most in 1915. As school entrants, they will be allocated computerized tablets with the capacity to instantly connect

to the wider world of information and knowledge available digitally to all. Such developments, while they offer extraordinary opportunities, also generate new challenges and new problems to be solved. For over a century, so much has happened, and in so many ways both within and externally influencing schooling. From its beginning, school psychology has maintained an ongoing symbiotic relationship with school systems, their teachers, their practices and pedagogies, and their communities. The new century has brought new opportunities and new challenges as this chapter seeks to convey. Therein lie the prospects for Australian school psychology into the future.

Synthesis

There are opportunities for Australian school psychologists to learn from international research, policies, and practices, as well as unique contributions that Australian school psychologists offer to inform the work of colleagues in other countries. As reflected in the chapters of this Handbook, there is science, practice, and policy in other regions of the world that provides important insights to further facilitate the practice of school psychology practices in Australia, and there are many insights from Australian school psychologists that help to advance science, practice, and policy in other regions of the world.

As described early in this chapter, given the similarities and differences that characterize school psychology in various countries around the world, there is tremendous opportunity to learn from each other. Professional transnational organizations such as the *International School Psychology Association* (ispaweb.org), of which Australia is a constituent national member, and to which individual school psychologists may join, provides one professional forum for doing this.

Furthermore, there are extensive resources invested in some countries regarding particular topics or challenges that are relevant for students in many other countries around the world. See for instance, the collection of annotated bibliographies addressing assessment, school-based prevention programs, transnational/multicultural school psychology, consultation, crisis intervention, and evidence-based interventions that were developed through a collaborative effort of international school psychologists, the Globalization of School Psychology Working Group of Division 16 of the American Psychological Association (Hatzichristou et al., 2012). Likewise, the increasingly diverse multicultural populations representative in many countries and communities around the world further reflect the importance of being prepared to work with diverse populations of students, staff, teachers, families, and professionals to meet the needs of children.

Furthermore, the profession of school psychology in countries around the world continues to evolve and adapt to local conditions and needs. Prevention science appears to be emerging or becoming increasingly established in school psychology in many regions of the world. Empirically supported intervention program is another area that appears to be gaining increasing attention and emphasis in many countries of the world. The development of psycho-metrically sound assessments of all aspects of child development continues to be refined and developed in numerous countries. Increasing attention to the importance of promoting the mental health of children and families is also apparent in many countries around the world. Promoting social emotional learning and psychological well-being in the school context and preventing bullying, victimization, and antisocial behaviours are topics that appear to be increasingly common among school psychologists, in response to national and regional concerns with such matters. Appendix includes a few brief questions regarding the content of this chapter.

Given the globalization of school psychology and the value of transnational knowledge, it is clear that the future of the profession will be informed by and will inform the future development of school psychology in Australia.

Particularly in this era of unprecedented global access to information, all professionals in all countries will increasingly have unlimited access to contemporary science to continue to inform the development of policies and practices to support students in schooling around the world.

Test Yourself Quiz

1. Identify and describe three commonly shared themes regarding school psychology internationally.
2. Briefly describe two variations and diversities in school psychology that reflect local contextual factors.
3. Briefly delineate five aspects of school psychology in Australia.
4. Identify three Australian commonwealth government initiatives and changes for the psychology profession.
5. Identify and discuss variations and diversities for school psychologists across Australia.

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A History of School Psychology in Australia

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Introduction

To understand the state of school psychology in Australia at present and to be able to adapt to future trends, it is important to understand the origins and history of the profession which have been shaped by the special Australian context as well as international events. It is essential to critically analyse the current practice of school psychology in Australia to ascertain which activities are anarchistic, i.e., we do what we do because we have always done it that way, and which can limit adaptation to current circumstances, as well as which activities are essential for positive outcomes in students' social, emotional, and educational development. Secondly, it is important to understand the origins of the profession and how it was shaped in order to plan effectively for change, as changing the practices of a profession is inherently difficult because of the unique distinctive role school psychologists have had in the past which Farrell argues has made the professional victims of that history (Farrell, 2010). In looking backwards, we therefore hope to be able to move forward in a proactive, planned way to respond effectively to the challenges ahead.

Before we begin we need to note two things; first, the different titles used for school psychologists in Australia, and second, the Australian division of federal and state responsibilities for education.

Different Titles

The term guidance officer is an Australian term for school psychologists (Whitla, Walker, & Drent, 1992). The original term guidance was used by an American, Sarah Sturtevant, to describe a movement in American education in the first half of the twentieth century, which was about psychology in education to manage students' development and guide them towards the future (Wright, 2012b). Guidance officer was used initially in Victoria as a neutral term in the post-WWII era, as it was regarded as more socially acceptable due to the fact that psychologists were often identified with those who were involved in the recruiting process for servicemen (Thielking, 2006). There were also some industrial issues related to the choice of term guidance 'officer' for the Victorian education Department (Faulkner, 2000). As Michael Faulkner (1999) describes it, the term officer denoted "the 'holder of office' within a bureaucracy" (p. 103). The title has been used at times in all states except

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New South Wales and the Australian Capital Territory. It is still the designation used in Queensland to indicate those who are in the role of school psychologists in that state's government schools (Whitla et al., 1992).

Today across Australia, three main names, school counsellor, guidance officer, and school psychologist, are used, with similar, but not identical, academic and training requirements across and within states and territories (Australian Psychologists and Counsellors in Schools (APACS), 2013). For example, in NSW most school counsellors are psychologists, although they are called school counsellors (Campbell & Colmar 2014). In this chapter, the term "school psychologist" will be used to include all types of professionally qualified psychologists and counsellors working in school contexts. Although at this time, the roles and functions of school psychologists and counsellors in Australia are broadly similar, there are distinct differences across the six states and two territories, reflecting the nation's cultural and historical regionality (Faulkner, 2007).

Different States

Politically, Australia is divided into six states (NSW, Victoria, Queensland, Western Australia, South Australia, and Tasmania) and two territories (the Australian Capital Territory and the Northern Territory). As compulsory schooling began when the states were separate colonies, education is a state and territory government responsibility (Commonwealth of Australia Constitution Act, 1900. s.5.107). There has been and remains diversity between state systems with respect to schooling, and consequently, in school psychology and counselling. Age of compulsory schooling is similar across states with most students attending preschool or kindergarten for a year prior to starting school. Six years of primary schooling is followed by 6 years of secondary schooling. Students with disabilities are mostly catered for in segregated special schools and special classes, although there is some integration into mainstream classes (Ashman & Elkins, 2005). In every state, there are three different schooling systems: schools that are provided free by the state government (servicing 63 % of students), schools that are provided by a Catholic archdiocese (22 % of students), and other independent, usually religious affiliated schools (15 % of students) (Australian Bureau of Statistics, 2012). Since Federation in 1901, the Commonwealth or Federal government has been increasingly involved in education and now has considerable influence, both economically and educationally. Economically, the Federal government provides funding for government-controlled schools and is also the major provider of public funds for non-government schools. This enables the Federal government to specify certain conditions that schools are required to meet. As schooling becomes more nationalised with, for example, the introduction of the national curriculum, national testing and accountability, national teacher registration, and professional standards (Wiltshire & Donnelly, 2014), school psychology could also be evolving in this direction. One example of this trend is the national registration and accreditation of all psychologists, including school psychologists, that was introduced in 2010 (Australian Department of Health, 2010).

The history of how each of the Australian states has responded to the need for psychological support in schools is idiosyncratic and reflects the specific issues, government policy, and events in that state. The diversity and distances reflect the geographical realities of the nation. However, even though the evolution of school psychology differs from state to state, there are similarities.

How School Psychological Services Began in Australia

The emergence of the discipline of psychology in the late part of the nineteenth century and the beginning of the twentieth had a significant influence on education, both in Australia and in other western countries. Psychology previously was considered more to be a kind of philosophy, which by mental introspection came to an understanding of the soul. The emphasis was on cognition

and normality, while the 'new psychology' examined emotions and behaviour and was more interested in abnormality (Wright, 2012b). This new psychology was therefore thought to have tremendous practical applications to education. School psychology's origins and development is also closely related to the changing educational philosophy in Australia (Oakland, Faulkner, & Annan, 2005).

The new psychology coincided with the provision of universal mass primary education, which was achieved in Australia by 1910 (Shorten, 1996). As some students were found not to cope with school, segregated special schools and special classes in regular schools were established (Ashman & Elkins, 2005). In Victoria, the education department authorised "special schools" for handicapped children in 1890, and thus required psychologists to perform a psychometric role, testing children for selection for such schools (Thielking, 2006). The first of these schools was established in 1913 on Bell St in Fitzroy, named the Bell Street School for Subnormal and Maladjusted Children with Stanley Porteus, a former country school teacher, as the inaugural head teacher. Porteus adapted the Binet-Goddard intelligence scale to identify children with suspected mental retardation for his school (Faulkner, 2007) and thus has been credited by some as being Australia's first school psychologist (Porteus, 1969). Thus, psychology was first applied in a practical application of intelligence testing for identifying children who it was thought would benefit from this segregated education. Just as Binet had envisaged, his intelligence scale published in 1905 with revisions in 1908 and 1911 was used by the staff at the NSW Teacher Training College with R.G. Cameron and Elizabeth Skillen from the Sydney Teachers College, both separately published Binet test results on Australian students in 1913 following Victoria (Wright, 2012b). However, it was not until the 1920s that the Binet scale was revised and normed for Australian use (Turtle, 1988). Such testing, however, was not widespread and, with the interruption of the First World War, there was not much progress in Australian school psychology until the 1920s.

The Period After World War I

Assessment. The period after World War I was a time of international study tours by several education authorities and the exchange of ideas at international conferences (McLeod & Wright, 2013). These study tours were supported by travel grants, often with financial support from the Carnegie Corporation. Most people studied in Britain and the USA, disseminating their ideas when they returned to Australia through publishing travel grant reports by the Australian Council for Educational Research (White, 1997). This council also provided a broad range of psychological and educational tests. One result of these study tours was a training facility set up in 1923 at the Melbourne Teachers' College where a 'psychological laboratory' trained a small number of teachers as assessors of children's mental capacity and as educational advisors to the public school system (Faulkner, 2006).

During the 1920s, there was considerable excitement about the contribution that psychology could make to improve social, economic, and educational problems (Wright, 2012b). Australia benefited from the fact that transportation and communication were reasonably well-developed in the early part of the twentieth century, so ideas were disseminated quite quickly throughout the country. The value of intelligence testing to enable the classification of individual differences was thought to enhance the goal of individualised education for all. The intelligence tests were not only to segregate children with mental retardation to special schools, but also for teachers to divide large classes into ability groups based on IQ scores (McCallum, 1990). Consequently in 1922, Henry Parker was appointed to the special education system in Tasmania (Hall, 1977). He is claimed by some therefore to be the first Australian school psychologist as Porteus was headmaster for his own school as well as testing children for that school. However, Lorna Hodgkinson was also appointed in 1922 by the NSW Department of Education as Superintendent of the Education of Mental Defective (Turtle, 1990). Her duties were to test cases of mental defectiveness and diagnose all subnormal children. Hodgkinson trained

as a pupil-teacher from 1903 to 1906, and in 1920, studied at Harvard graduating in 1922 with a doctorate in education on the diagnosis and treatment of atypical children. However, Hodgkinson was regarded by the Education Department as troublesome as she publically disparaged the Department's provision for 'feeble-minded' children and was dismissed after just 18 months (Turtle, 1990). Despite this setback, by 1936, all final year primary students in NSW were administered intelligence tests to assign them to secondary schools (Hughes, 2002).

The need for a psychological service in schools in Adelaide was recognised by Dr Gertrude Halley who advocated for it from 1915 as she felt that the medical profession was not equipped to deal with the psychological problems of children (Shearer & Seliga, 1968). In 1924, Constance Davey, a teacher and doctoral student of Charles Spearman, joined the South Australian Education Department Medical Branch as a psychologist. Her role was to psychologically examine both educationally 'retarded' children and problem and delinquent ones; organise special classes for these children; train teachers for them as well as provide vocational and school guidance and conduct research (Shute, 1995). In 1926, in Western Australia, Ethel Stoneman was employed with the Education Department as a psychologist to support intellectually retarded children in school (Nixon, 1977). She was the director of the State Psychological Clinic from 1926 to 1930. With a change of state government and societal distrust of testing the feeble-minded, however, her position was terminated in 1930 (Turtle, 1990).

The importance of conducting cognitive assessments for the purpose of identifying and diagnosing intellectual disability has therefore been a hallmark of school psychology. The growth of the profession has been due to the pivotal and historical role of IQ testing for the identification of students with special needs and has assumed a medical model that focused on the problem within the child (Farrell, 2010).

Vocational guidance. Guidance in the period between the world wars was not only concerned with practices, such as intelligence testing and ability grouping, but was also being embraced as an educational philosophy (Sturtevant, 1937). Education was seen as an investment in the social and economic future and guidance was a philosophy and set of practices to assist schools to achieve this. Psychological testing was thought to be able not only to individualise educational provision, but also to solve social problems such as unemployed youths. The prevailing philosophy expressed by K.S. Cunningham in 1925 was to "make educational facilities fit the ability of all children" (Argus, 1925, p. 8) so that there would be no 'misfits' as every child would be educated for the work he was best fitted. This notion of assisting children to 'fit' into the right job led in this period to the promotion of vocational guidance to assist students.

The basis of vocational guidance using intelligence testing and assessment of skills and aptitudes was to find boys and girls suitable vocations (Wright, 2012b). Not only was educational achievement noted for students in NSW, but also emotional traits, assessment of personality, and details of home were compiled and these together with the Cumulative School History cards for each pupil aided the school psychologists to give vocational guidance (NSW Department of Public Instruction, 1929). In 1926, a vocational guidance bureau was established in the NSW Education Department with Victoria following suit in 1929. In Queensland, vocational services were very limited in the interwar period (Williams, 1967).

Educational guidance. Linked to school vocational guidance for advising students on jobs and careers post-school was the provision of educational advice for boys on selecting suitable courses of study for professional, commercial, industrial, and rural occupations, or for girls, home management (Giles, 1932). To enable educational guidance in schools in NSW in 1935, school counsellors were introduced (Hughes, 2002). This service was comprised of teachers with psychological qualifications who were in charge of educational guidance. Educational guidance was deemed essential to reduce unemployment among youth in these depression years, together with the prevailing view that all adoles-

cents went through a tumultuous, rebellious time during which they needed guidance. Thus, psychological, vocational, and intelligence testing were viewed with great optimism. They contributed greatly to individualised instruction and educational guidance to assess students' skills and aptitudes to gain them meaningful employment according to their capabilities.

Child guidance. In the 1930s, the psychology of young people in general and delinquent and problem children in particular were of great concern to educationalists. At the 1937 New Education Fellowship Conference held in Australia, Susan Isaacs, an educational psychologist, estimated that 25–30 % of school children needed psychological guidance and 5 % definitely required psychotherapy (McLeod & Wright, 2013). Advocacy for child-centred learning informed by concerns for children's emotions was promulgated at the same time as mental testing and the categorisation that followed it. Thus, another area that was deemed to benefit from the new 'scientific' direction of psychology applied to youth in schools was mental health.

In the 1930s, with the increased concern about children's welfare and the view that society was changing rapidly, many were worried about juvenile delinquency and maladjustment and mental disease in youth. Following the lead of America, where child guidance clinics had been set up in the 1920s to diagnose and treat emotional and behavioural problems in students, a clinic was established in Melbourne in 1934 with schools, parents, and the courts referring children for a fee-for-service. This clinic would also provide vocational guidance. However, by 1936, the child guidance work could not be sustained economically and the clinic only then provided vocational guidance (Wright, 2012a).

However, in 1936, a child guidance clinic was established in Sydney as part of the School Medical Service in the Department of Education, funded by the NSW government. The first clinic was a two-storey house near Parramatta Road set up by Dr Irene Sebire, the first woman in Australia to obtain the Degree of Psychological Medicine (Dawson, 1949). Head teachers referred students for both internalising disorders such as fears, shyness, and unsociability and externalising disorders such as disobedience, tantrums, lying, stealing, and over-activity (Burton, 1939). Thus, the child guidance clinic added to the school as a site not only for educational learning and vocational guidance, but also for recognising and treating child problems. The claim was that the child guidance clinics, which numbered four by 1949 in NSW and saw an average of 700 children annually, reduced child delinquency and enabled problem children to enjoy a healthy adulthood (Dawson, 1949). In Queensland, the first child guidance clinic was established much later in 1959 (Williams, 1967). The clinics demonstrated the optimism that educationalists held for the role of scientific psychology to help reform society (Thomson, 1995).

Impetus of School Psychology After World War II

The dawn of the second half of the twentieth century was a bright one for Australia. The launch of the iconic Snowy Mountains Scheme in 1949 (creation of a massive hydroelectricity and irrigation system and remains the largest engineering project in Australia) and the coronation of a 25-year-old Princess Elizabeth in 1953 epitomised the youthful enthusiasm of a modern post-war nation. Expanded secondary education was achieved in the 1950s, which increased the demand for more practitioners who could administer cognitive assessments for the purposes of optimising students' educational success in secondary school (Hughes, 2002). The eventual achievement of secondary education for all was linked inextricably to the task of reconstructing Australia after World War II (Faye, 1998). However, states differed in the use of group IQ testing to classify students for selection to certain high schools (Hall, 1977). It was estimated that prior to 1950, there were only 20 school psychologists in Australia (Korniszewski & Mallet, 1948). At this time, a 1948 United Nations Education and Scientific Organisation (UNESCO) survey noted that the aims of applied educational

psychology were still contained in the three broad areas of recognising "backward" children, educational guidance, and vocational guidance, as they were in the inter-war period.

In Victoria in 1947, a Psychology Branch was established with the Primary Division of the Victorian Education Department. This branch was the result of a commissioned visit to the US and the UK and subsequent report by Jack Cannon and Ken Cunningham (Faulkner, 2000). The branch was staffed by guidance officers (school psychologists), support teachers, and social workers. Initially, the school psychologists were returned servicemen who were either university graduates or ex-teachers with additional training (Thielking, 2006). In 1949, there were five psychologists in the branch including the first graduates from the Melbourne University School of Psychology. In 1955, the branch name was changed to the Psychology and Guidance branch (Jacobs, 1986). During this time, the role of the guidance officer was to administer test batteries to selected students to attend secondary school. This directive from the educational employer did not sit well with most guidance officers who saw themselves more as reformists in the educational progressive movement (Faulkner, 2000). This belief was epitomised and advocated by John McLeod who served with the Victorian Psychology and Guidance Branch for 29 years from 1947 to 1978. McLeod did not ascribe to the narrow view of testing, but rather emphasised the "interrelationships between social structures, educational processes, and psychological functioning in school children" (Faulkner, 2000, p. 122). In the 1950s, in NSW the school counselling service had "become a service of general practitioners in educational, vocational and all kinds of psychological guidance" (Verco, 1958, p. 56).

Immigration. The period after World War II was also a time of increased exposure to other cultures in Australia, and with the establishment of the Federal Department of Immigration by Prime Minister Ben Chifley, a large-scale immigration program from Europe commenced. Melbourne welcomed international sporting teams to the Olympic Games in 1956 and this could be regarded as symbolic of post-war Australia welcoming the waves of immigration that would continue to the present time when 24% of Australians have been born overseas (Frisby & Reynolds, 2005). Immigration contributed to the rapid expansion of Australia's secondary system (Oakland et al., 2005) and the need for more school psychologists. Each new wave of immigrants also brought challenges to school psychologists who have faced difficulty in assessing culturally and linguistically diverse students fairly, especially with respect to difficulties in learning (Frisby & Reynolds, 2005). Added to this problem was the fact that most Australian-based psychologists were and still are only competent in English (Jimerson, Oakland, & Farrell, 2007). In the early 1970s, in Victoria, school psychologists lobbied for language interpreters and also other forms of support for newly arrived immigrant students (Faulkner, 1993). This situation of providing adequate support remains today with many immigrant children arriving traumatised and without having had adequate schooling (Boston, 2014). With 24% of the Australian population born overseas and 3% being of the Islamic tradition as well as 4% of school-aged children being from the Aboriginal and Torres Strait Islander culture (Preston, 2013), there is an urgent need for school psychologists to undertake training in multicultural counselling and assessment.

Distance gives rise to innovation. The Australian educational landscape of the 1950s nurtured the development of a uniquely Australian character, which impacted the developing profession of school psychology. When a prominent educationalist Miss Adelaide Miethke had the idea to adopt the pedal-powered radios used by the Royal Flying Doctor Service for the delivery of school lessons, the School of the Air was born and its introduction provided a solution to the tyranny of distance and education became available to those in remote areas (Edgar & Jones, 1986). Providing psychological services to students in these isolated areas presented a special challenge. The vast distances encountered by many who worked in the rural and outback areas of the state education systems

limited the ability of school psychologists to have frequent consultations with students, and as a result, innovative strategies were needed to support these young people. Observers of Australian school psychology suggest that this remoteness motivated the development of indirect services where school psychologists developed step by step programs explained in clear language for parents to implement (Ritchie, 1985). Rural school psychologists are still difficult to recruit and many country areas are under-serviced by qualified personnel (Oakland et al., 2005).

Academic expectations. Student pastoral care became more prominent in the 1950s and during the two decades post-war. In Victoria, school guidance services were being considered to be delivered in homes and neighbourhoods as well as schools (Faulkner, 2000). However, intelligence testing for educational placement and vocational counselling still took precedence.

The launch of Sputnik in 1957 by Russia was a catalyst for emphasising science education in the United States and the associated need for students to strive for excellence in the field (Wissehr, Concannon, & Barrow, 2011). This global event coincided with a change in emphasis of the role of school psychologists, which started to expand from screening individuals for special education programs to the vocational guidance of mainstream students into the most appropriate post-secondary school courses and occupations. Entry requirements to universities exerted academic pressures on the curriculum of schools, and with the introduction of quotas for some university courses in the 1960s, increased the competition for places (Mossenson, 1981). The advent of the Commonwealth Schools Commission in 1973 led to an increase in funding for education and a high priority was placed on combating the effects of socio-economic disadvantage (Australian Council for Educational Research (ACER), 1998). This in turn required school psychologists to increasingly consider the social welfare of students.

By the 1960s, intelligence testing for innate ability to determine a child's placement in ability groupings in either different schools or within a school or even classroom was being replaced by McLeod's view that educational difficulties can be caused by various factors including parental treatment and expectation as well as by teaching styles, the curriculum, and school climate (Jacobs, 1986). This view led to the development of school psychologists working in a more collaborative and consultative way with staff in schools (Thielking, 2006). The role expanded by the 1970s to accommodate some of the welfare functions, previously undertaken by the family or church. This more pastoral focus included providing individual and group counselling to students with social-emotional difficulties as well as in service to teachers and assistance to parents (Jacobs, 1986). In the 1970s, there was a perceived increase in student violence and aggression and calls for more psychologists (Department of Education Victoria, 1973). By the mid 1970s, there was another name change for the Victorian Branch to "Counselling Guidance and Clinical Services". This service was staffed by guidance officers (dual qualified teachers and psychologists) and psychology officers (psychologists without teaching experience) as well as social workers, speech therapists, welfare officers, and interpreters (Thielking, 2006).

In the mid 1980s, in Victoria with 330 school psychologists employed, the centralised statewide branch was disbanded and local centres, Student Service Centres, were established where managers were not psychologists (Jacobs, 1986). More restructures occurred in the Victorian Education Department and many roles became blurred with low morale for school psychologists in this period (Burden, 1988). This situation was exacerbated in the 1990s with the system of psychological services to school described as being stretched since the abolition of the centralised branch and years of cost cutting and restructuring. Psychologists in schools were employed in administrative and policy implementing activities that did not allow time for student counselling (Whitla et al., 1992). By 1997, the number of school psychologists was reduced to 130 in Victoria with an enrolment of 514, 805 students in government schools (Australian Bureau of Statistics, 1997). This was largely due to the Victorian government's policy shift that saw many

students with disabilities attending mainstream schools as well as the assessment of children for special education services contracted out to private psychology organisations (Faulkner, 2006). However, this trend to outsource the cognitive assessment role has not occurred in other states. The rate of youth suicide, however, increased at this time, which promoted an injection of money to schools to fund student welfare co-ordinators, school nurses as well as school psychologists to provide support for student well-being (Thielking, 2006). At the beginning of the new century, the ratio of school psychologists to students in Victoria was the lowest in the country. This, together with the fact that the service was decentralised so there was no centralised support, further added to the low morale in government schools.

Career Guidance

Career development in Australian schools has continued to evolve from its vocational guidance beginnings in the interwar years. Many practitioners in the school psychology role have continued to provide career guidance in schools and one third of the membership of the Australian Association of Career Counsellors work in education (McMahon, 2006). University fees were abolished by the Whitlam government in the 1970s, and together with a concerted effort by the federal government to increase the number of places at university in the 1980s, there was an increased need for career guidance. The role of assisting students to apply for courses at tertiary institutions was successfully met by school counsellors (Pascoe, 1999). The establishment of the state-based university admission centres in the 1990s led to school psychologists and counsellors being responsible for coordinating the process of tertiary admissions at the school level. In Queensland, secondary school guidance officers were expected to provide counselling services at the local district office during the admission period that occurred in the summer vacation. For most of the 1990s and continuing to this day, assisting students with the tertiary entrance process was an accepted responsibility of the secondary school's guidance counsellor and was regarded as a priority from a principal's perspective (Dickinson, 1995), though the introduction of online application processes has reduced much of the manual data collection. The role of career advisor and school counsellor is separated in some states; however, in Queensland government schools, both functions are still included in the role description of the guidance officer (Education Queensland, 2012).

Development of training, qualifications, and accreditation. As mentioned previously, the first training school for school psychologists was conducted at the Melbourne Teachers' College in 1923. In universities, however, psychology was taught in departments of philosophy in the beginning of the twentieth century and it was not until the 1930s that separate psychology departments were established at Sydney University and the University of Western Australia (Turtle & Orr, 1990). The University of Melbourne followed suit in 1946 with the University of Adelaide and the Australian National University in the 1950s (O'Neill, 1977). However, at this time most psychologists completed their training in either the United States or in the United Kingdom (Ritchie, 1985). The rise in empirical and applied psychology in the early twentieth century coincided with the interest in the psychological and pedagogical practices of Dewey and Montessori (Oakland et al., 2005). The fact that, from 1913, teachers in Victoria were provided with in-service psychological courses attested to the growing interest of educationalists in psychology.

In the mid-1970s, Master's degree programs in educational or school-related psychology were being offered in universities, mainly within education faculties (Faulkner, 2007). In at least two states of Australia, Queensland and Victoria, a partnership model of training was instituted, with universities offering training in postgraduate studies, and the state education employing authority training in practical and institutional imperatives. In Queensland, this model was in place from 1975 to 1992, and in Victoria, from 1972 to 1993 (Faulkner, 1999). To cope with the increase in the number of types of service

provision that society and schools were demanding from school psychologists and counsellors, university course offerings have expanded since the 1980s (Ritchie, 1985). It is interesting to note the impact of government policy in restructuring the state educational systems as it has similarities in the different states, for example, the disbanding of the specific departments catering for school psychology at similar times with the abolition of the Department of Special Education in Queensland in 1991 and the abolition of the position of Guidance Officer Training Coordinator in Victoria at the same time.

In 1993, the state education employers withdrew and the universities took over the pre-service training of school psychologists and counsellors. NSW still offers retraining in partnership with universities, with another unique program at The University of Sydney, which trains students with psychology honours degrees, who are eligible for provisional registration as psychologists, in a postgraduate teaching and school counselling Master's degree (Campbell & Colmar 2014).

In Australia, at present there is dual training for most school psychologists and counsellors in education and psychology. There are various pathways, with most people training as teachers and undertaking mid-career training as school psychologists (Burnett, 1997). However, some take a dual degree in education and psychology, while a very few initially work as psychologists and subsequently take an education degree. Queensland is the only state that has historically employed teachers with postgraduate training in school guidance and counselling rather than teachers who are also psychologists.

Development of clinical supervision. The origins of clinical supervision can be traced to the Freudian era when small groups of practitioners met informally to discuss each other's work. Supervision was only made a formal requirement of training for psychologists and counsellors in the 1920s by Max Eitington (Carroll, 2007). Carroll identified these early years as being characterised by reflecting on the practice of colleagues as the first of three stages in the development of supervision. The second stage began in the 1950s when other counselling and psychotherapy orientations were introduced and which have been called 'counselling-bound or psychotherapy-bound' models of supervision (Carroll, 2007, p. 34). The 1970s signalled the third stage when the focus moved from the practitioner to the work done in the counselling interaction resulting in developmental frameworks centred on practice. As the emphasis of supervision became focused on the improvement of the counselling interaction, supervision beyond training became a priority for school psychologists and counsellors. Those who are fully or provisionally registered psychologists have specific supervisory needs; however, since school counsellors represent less than 1 % of the workforce in schools, their minority status within the education system presents many issues, both for organisations and practitioners, in terms of clinical supervision (Magnuson, Norem, & Bradley, 2000). The importance of clinical supervision for this professional group has not been fully appreciated by those in educational management; thus, employer-provided supervision has been less than adequate (Barletta, 1996).

The nature of schools and the responsibilities of those in educational leadership may result in focusing on the managerial aspect of supervision for school psychologists, with a focus on the organisation's goals rather than clinical supervision aimed at best practice for clients. The organisational culture of schooling is usually based on defensive styles, in which feedback is primarily negative, and mistakes are to be avoided rather than viewed as learning opportunities (Cooke & Lafferty, 2000). The connotation of using the term supervision within the educational context implies a hierarchy of power where school administrators monitor and evaluate staff. As most school psychologists have transitioned from a teaching role, this is the concept of supervision that many have when they enter their new role. As clinical supervision differs from a managerial model, school principals may not readily appreciate the specific nature and importance of clinical supervision and may regard it as taking time away from client services (McMahon, 1998).

Even though senior psychologists and guidance officers are required to provide clinical supervision for practitioners in schools, there is typically no training provided to them by the employers. As a result, the quality and consistency of supervision varies and the practice of providing supervision to school-based personnel can be limited and delivered in an ad hoc manner (Campbell & Wackwitz, 2002). Unfortunately, Thielking's (2006) study showed that the situation has not improved in the past 20 years since Barletta's investigation, and considering the increasing challenges such as the rise in mental health issues confronting today's school psychologist, the lack of supervision continues to be a crucial requirement for practitioners and an essential aspect of the profession.

History of Professional Associations

In Australia, there are two major professional associations catering for school psychologists and counsellors. One is the Australian Psychologists and Counsellors in Schools (APACS), which is a national body of various state associations, such as the Queensland Guidance and Counsellors Association and School Psychologists in Western Australia. Membership to APACS is by state affiliation. APACS was formed in 1985 and named the Australian Guidance and Counselling Association. It was an amalgamation of state-based organisations that still retain their own independence (Prescott, 1995). The association publishes the Australian Journal of School Psychologists and Counsellors (formerly the Australian Journal of Guidance and Counselling) and an email newsletter, holds a biannual conference, and advocates at a national level for its members (www.apacs.com.au). In 1995, the association affiliated with International School Psychology Association (Faulkner, 2006).

The other association is the Australian Psychological Society. This association was established in 1965 and was formerly a branch of British Psychological Society from 1945. It has nine colleges, one of which is the College of Educational and Developmental Psychologists, which requires psychologists to have specified qualifications and experience in this area. There is also an interest group of school psychologists, only recently formed in 2012 by Thielking, which any member of the APS can join, and a School Psychology Reference group, established since 2005, for which membership is invited (Australian Psychological Society, 2014). Furthermore, a Psychologists in Schools Advisor position at the APS was created in 2005, providing professional advice to school psychologists; however, this is only staffed by one person on a part-time basis and is therefore limited in its capacity. Both associations (APS and APACS) provide a code of ethics for their members and vie for membership; both also claim to be the peak body for school psychologists and/or counsellors.

Reflection

It is prudent to reflect on the history of school psychology in Australia at this point. Farrell (2010) argues cogently that, as an emerging profession, school psychology was firmly rooted in the medical model of looking within the child to find the problem, by testing children's IQ to assess whether they needed special educational provisions. As IQ testing was exclusively reserved for the profession of psychology, it is no wonder that teachers, administrators, and parents came to see that as the dominant task for school psychologists as no other professional claimed to have this expertise. Many school psychologists, such as the previously mentioned John MacLeod, did not adhere to this narrow conception of assessment, nor that assessment was the only role of a school psychologist. However, many surveys conducted in Australia have shown that individual IQ testing is still the most prevalent activity of school psychologists (Faulkner, 2006; Thielking, 2006). Farrell (2010) argues that school psychology is a distinctive profession, but that does not mean its only uniqueness is based on giving individual IQ assessments to children. It is inter-

esting to note this same sentiment in the Victorian John Hall's writing in 1977.

> *It must be acknowledged that the intelligence testing and the categorisation of children which psychologists have practised for so long has reinforced attitudes in teachers antithetical to change, and has supported psychologically indefensible practices. Some 20 years ago, the institutional stereotype of the psychologist was that of mental tester of children who did not meet the school's intellectual or behavioural demands and the teachers' perception of the psychologist's role was the he should place the child elsewhere, or restore the child to conformity.* (pp. 169–170)

We can see therefore that IQ testing might be an historical hindrance in progressing the field of school psychology if, for the last 50 years, the perception is so entrenched. One arcane practice in Queensland school counselling in the Education Department is the requirement to write a 'guidance' report as soon as an intelligence test is carried out; this is whether the diagnosis has been reached or not. Historically, this comes from guidance officers travelling by train around the state in the 1970s and 1980s, to primary schools to test referred children. Each guidance officer conducted two individual IQ tests per day, interviewed the parents, sometimes saw the teacher briefly, and wrote a 'guidance report' for each child. Copies were distributed to the teacher, the parent, and the child's file. There was no follow-up. Depending on the size of the school, a return visit was conducted in 6 months for new referrals. Given the limited resources, this model may have been appropriate at the time. However, the practice seems to be unnecessary in the present model of service delivery where most primary schools are serviced for 2 or 3 days a week.

School Psychology Today

Roles and responsibilities. The role of the school psychologist or counsellor today is to assist students, teachers, parents, and school communities to enable students to reach both educational and social-emotional outcomes through proactive and reactive strategies. It is an ever-expanding role, which means that school psychologists not only assist students with mental health concerns, but also provide psychological assessment, career and personal counselling, behaviour management interventions, consultation, and professional development for teachers and parents (Thielking, 2006). Given this variety of professional duties, it seems, as Bardon (1983) stated, that instead of developing as a profession, educational guidance and psychology in Australia has, along with schools generally, accumulated tasks. The trend that Bardon identified continued over the next 30 years with additional roles, skills, and competencies expected of school psychologists (McKie & Colmar, 2013). Not only are school psychologists increasingly positioned within a school-based multidisciplinary team, they are often required to support government initiatives designed to increase the capacity of schools and teachers to cater for the mental health needs of the school community (Stafford, 2007). The implementation of MindMatters (Mason, 2009) which focuses on developing the understanding and capacity of secondary schools to address mental health issues, together with KidsMatter (Fasano & Cavanagh, 2009; Graetz et al., 2008) which paralleled this innovation in primary schools, demonstrates this increasing need for practitioners to possess collaborative leadership skills when facilitating such whole school-based initiatives.

To provide information about the role of a school psychologist for those working in education, the Australian Psychological Society produced a paper entitled "Framework for the Effective Delivery of School Psychological Services" (2013). The document advocates for practice standards to be met by all school psychologists and provides a national and unified approach to the practice of school psychology in Australian schools. The framework also provides a model of school psychological service delivery, using a domain and sub-domain approach, with the integration of roles, activities, and tasks, involving personal attributes and contexts. Practical advice and information is provided for many of the challenging areas of school psychology practice (McKie & Colmar, 2013).

In this framework, the main roles, activities, and tasks of a school psychologist are described as prevention (e.g. information and psychoeducation for students, student programs for well-being, information to parents and teachers, and health promotion), assessment (e.g. educational, psychological, or diagnostic), intervention (e.g. counselling, mental health service provision, and intervention for learning and behaviour), collaboration (e.g. consultation, critical incident management, and referral to community agencies), and management (e.g. administration, record keeping, research and evaluation, and supervision and mentoring).

Not only have school psychology services been widened to focus on the increasing needs of young people, but they have also been influenced by their strong relationship with educational public sector organisations. As a minority profession in a large educational bureaucracy, school psychology has been subject to and influenced by the many changes in organisational restructuring and policy initiatives (Faulkner, 1993; McKie & Colmar, 2013).

Service delivery models. There are many different service delivery models that school psychologists and counsellors operate in Australia. For most secondary schools practitioners, usually service one school (Rice & Bramston, 1999) and the ratio of practitioners to enrolments has remained relatively stable over recent years. In primary schools, practitioners usually service multiple sites. In some states, there is a combination of servicing both a secondary school and the primary feeder schools. Some psychologists are physically based at a school site, while in other places, they are based at a district office and go out to schools on an as-needed basis. Although the as-needed basis has some benefits of equity, these practitioners are not able to work systemically to influence the climate and practices of the school.

Thielking (2006) investigated school psychologists' service delivery models in Victoria and found that they were working systemically as part of a school team as well as providing traditional services such as counselling and assessment. Those practitioners who worked in government schools and/or serviced multiple sites reported that they participated in more psycho-educational assessments and undertook less program development and delivery than those working in nongovernment schools and/or on one site. Those working in one site had more time to deal with matters that were not driven by some level of crisis. The multi-site practitioners were also less professionally satisfied with their office spaces, file security, access to technology, and psychosocial resources.

With community agencies such as Headspace (www.headspace.org.au), Kids Help Line (www.kidshelp.com.au), and Reachout (http://au.reachout.com), providing web-based support to young people, school psychologists are challenged to adapt their service delivery systems to incorporate technology and the internet. For example, the provision of online counselling in schools may increase the help-seeking behaviours of at-risk young people (Campbell & Glasheen, 2012).

Numbers of school psychologists. In some states in Australia, there is an oversupply of personnel who are qualified to be school counsellors and who still work in the classroom, especially in Queensland. There has been a slight increase in the last 20 years in the number of school psychologists with 1400 in government schools across Australia in 1992 to over 2000 in 2013. There has been a consequent slight reduction in psychologist-to-student ratios in this period with 1:1544 in NSW and 1:4200 in South Australia in 1992 and 1:1050 in NSW and 1:3500 in South Australia in 2013. It is interesting to note that the ratios in NSW and South Australia remained the lowest and highest, respectively.

Gender, age, remuneration. School counselling remains a female-dominated profession in Australia, given that three of the first school psychologists were women. The proportion of female counsellors is 89 % (NSW Department of Education and Communities, 2011), which is similar to the proportion of primary school teachers but higher than that of high school teachers. It appears that there has been a substantial decline in the proportion of men, relative

to women, working as school guidance officers in Queensland since 1999, when 44 % were men, dropping to 28.2 % in 2010 (Anderson et al., 2010; Bramston & Rice, 2000; Rice & Bramston, 1999). This mirrors a similar decline in the number of men in the general teaching population throughout Australia and worldwide (Martino & Kehler, 2006; Mills, Martino, & Lingard, 2004), which has occurred in spite of state governments' campaigns to increase the proportion of male teachers.

Most school psychologists and counsellors are over 45 years old (NSW Department of Education and Communities, 2011), with a median age of 52 years. This is slightly older than the teaching population, as psychologists may have completed several years of teaching and further postgraduate studies. Approximately 40 % of NSW counsellors are over the national retirement age, but still are employed. There also appears to have been a substantial increase in the age of school counsellors in Queensland—from 37.5 % who were aged over 50 in 1999 to 56.4 % in 2010.

The future. Even though the roles adopted by school psychologists have varied in response to societal and educational demands over the twentieth and early twenty-first century, there has been a consistency in the core responsibilities of those providing psychological services within the education sector. The influence of educational philosophy has determined the level of psychometric assessment that was required either for identification of individuals for special programs or for providing universal programs. The motivation of educational systems to assess students has varied as a response to social pressures; however, cognitive assessment still remains a key function of school psychologists and there is no indication that this will change significantly.

The manner in which educational philosophy can impact educational psychology is highlighted by the increased demand for accountability in educational practices, and where in the past the emphasis was on the child and their inadequacies, such developments as the Response to Intervention initiative which has recently become popular in the United States as a means of identifying learning disabilities has yet to have a major impact on the Australian educational landscape. However, with the advent of national educational assessment models such as NAPLAN (National Assessment Program-Literacy and Numeracy), these movements, which focus more on the effectiveness of the pedagogy, could require school psychologists to work in an educational leadership and collaborative role with teachers rather than identifying the limitations of students (Hempenstall, 2012). This may challenge the school psychologist to be more closely associated with the teaching process rather than the learning response. Given this potential change for the future development of the profession, Farrell (2010) suggests that there is a need to invest in research that explores and evaluates other approaches to the psychological assessment of students with learning difficulties.

The necessity to prepare students for life pathways began with the need for vocational guidance and continues with the demands of career development in secondary schools. As young people strive to navigate the pathways of secondary and tertiary education, there will be a continued need for guidance services to assist the young people as they assess their life goals and appreciate the career opportunities to achieve these which in turn impacts the young people's state of well-being. It could be questioned if career counselling will continue to be a role of school psychologists as other school personnel become responsible for School-Based Apprenticeships and work placements as part of their role. However, this is unlikely as there remains the need to counsel young people as they clarify their personal goals, which are intricately linked to their career aspirations.

Thus, while the role description of the school psychologist in Australia varies across the country, if we are to consider the future role it can still be summarised as it was at an earlier time

> "*The task of school psychologists is to assist students, teachers, parents and school communities to solve and ameliorate a very wide range of educational problems. School psychologists apply their knowledge of psychology as a behavioural science to the presenting school situation, in both proactive and reactive approaches.*" (Whitla et al., 1992, p. 2)

Of course history is still being made—legislation about psychological services in Medicare, national accreditation for psychologists, and national initiatives to target students' mental health (Department of Health and Ageing, 2010) are some of the issues confronting school psychologists today. The twenty-first century poses new challenges for the school psychologist. Their role has evolved to that of a mental health worker whose goal is often to support students experiencing depression and anxiety and whose educational progress is being impeded by such disabilities. The need for more school psychologists to deal with issues such as anger management, cyberbullying, self-harm, and suicide has been acknowledged in the popular media (RTT News, 2013, Mar 27; Gold Coast Bulletin, 2009, Oct 08; Stirling Times, 2012, Jul 03).

The profession is changing and is faced by a number of challenges as it evolves from a 'mid-career' profession to one that is increasingly being revitalised by 'first-career' psychologists (Faulkner, 2006). The role increasingly demands collaborative and collegial skills as they work ever more closely with other professionals based in community health and human services. School psychologists are increasingly part of a school support team, which may consist of youth workers, nurses, police officers, and members of other training organisations that have the young person's well-being as their focus. Technology will play a larger role in the provision and access to school psychological services in the remotest areas of Australia. The role is no longer narrowly focused on the educational outcomes, but now is challenged by the contributing factors of mental health, family structure, and financial and social pressures. Research on the positive impact of school-wide programs and interventions will also broaden the role considerably and school psychologists have a major role to play in facilitating students' access to psychological support.

Test Yourself Quiz

1. How has educational philosophy impacted the practice of school psychology?
2. Why do you think that school psychology is still dominated by individual IQ testing?
3. Interview some experienced school psychologists and ask them how has school psychology changed during their time.
4. What do you consider to be the most important challenge facing school psychologists?
5. How would you describe the value of a school psychologist to an employing school principal?

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School Psychological Practice with Indigenous Students in Remote Australia

Sue Edwards, Lorolei White, Edith Wright, and Monica Thielking

Introduction

This chapter presents a brief snapshot of Australian Indigenous culture and history and discusses the challenges and opportunities of providing school psychological services in remote Indigenous communities in Australia. It is a unique and rewarding experience to work as a school psychologist in this context. Available research on this topic is limited, and some of the information presented are 'pearls of wisdom' gleaned and shared by the three authors' - Edwards, White and Wright - the latter having cultural links to the Bardi people from the Kimberley region of Western Australia. All three have extensive practical experience as educators and school psychologists working in remote Australia with Indigenous students and their families. The chapter is specifically intended for psychologists considering working with students and schools in remote Australia, and who are not Indigenous themselves.

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Indigenous Australian Culture: Important to Know

> "*Aborigines have the longest continuous cultural history of any group of people on Earth. Estimates date this history between 50,000 and 65,000 years. Before European settlement of Australia, there were around 600 different Aboriginal nations, based on language groups*" (Australian Government Digital Transformation Office, 2015, "The Dreaming", para. 4).

Australia has a land area of over 7 million km^2, with 20 % classified as desert. In Australia today, there are 24 million people (Australian Bureau of Statistics Population Clock), of which approximately 670, 000 are Indigenous Australians (Australian Bureau of Statistics, 2011). Indigenous people comprise two groups, Aboriginal people and Torres Strait Islander people and Indigenous young people make up 4.2 % of the total youth population, and this proportion is expected to grow (Australian Bureau of Statistics (ABS), 2011). In fact, the most recent count shows that there were close to 290,000 Aboriginal and Torres Strait Islander children

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aged 0–17 in Australia (Australian Institute of Health and Welfare (AIHW), 2014).

Most Australians live in and around capital cities, which are mainly situated on the outer coastal areas of this vast and beautiful continent. According to the last Australian census, 70 % of the population lived in major cities, 18 % in inner regional, 9 % in outer regional, 1 % remote and 1 % in very remote areas. The state/territory with the largest proportion of Indigenous Australians is the Northern Territory (NT), comprising 30 % of the total NT population. Their geographic distribution across Australia is quite different to the rest of the population with 21.4 % of Indigenous people residing in remote and very remote areas (ABS, 2011). The proportion of the Indigenous population who live in remote and very remote areas is projected to fall from 21.3 % (in all remote areas of Australia, including NT) in 2011 to 17.5 % in 2026 (Commonwealth of Australia, Department of the Prime Minister and Cabinet, 2016).

There are three standard classification systems used to determine 'remoteness' in Australia (i.e. RRMA, ARIA and ASGC; see Closing the Gap Clearinghouse (AIHW & AIFS), 2014), with all referring to the distance by road to the nearest town with a sizeable population and service centre for goods/services and social interaction (Baxter, Gray, & Hayes, 2011). If one has not been to a remote area of Australia it may be difficult to imagine what it is like. Imagine yourself standing and slowly turning around in full circle. No matter where you look, you see the horizon. You are thousands of kilometres from the nearest town in every direction.

Connection to land and culture. Indigenous people come from a culture that is rich in tradition, languages, stories and creativity, land stewardship and innovation (such as creating the 'boomerang' for hunting; or using natural materials for art mediums). Connection to land and people is at the heart of Indigenous culture, including a strong sense of spirituality and close family kinships. The Australian Indigenous people are traditionally a nomadic society and being hunter-gatherers they built semi-permanent dwellings and travelled in fixed routes according to the seasons. A sophisticated kinship system is central to Indigenous social and family relationships, shaped by social, cultural and spiritual beliefs and habits. In fact, the 'self" is seen collectively rather than individually, as being composed of an interconnection between "life, community, spirituality, culture and country" (Parker, 2010, p. 2). Parker asserts that prior to European settlement, this culturally rich and integrated Indigenous way of life created optimal conditions for mental health.

Attachment to 'Country' (place of birth, land and natural environment, including the animals who inhabit an area, and the ancestors that lived there long ago) is the hallmark of being Indigenous, complete with distinct 'Dreaming' creation stories, which are handed down from generation to generation, and are linked to spiritual ancestors (Dudgeon, Wright, Paradies, Garvey, & Walker, 2010). The Australian Government has also created a useful website describing both Australian and Indigenous peoples and culture where it describes Dreaming as mechanisms to "pass on important knowledge, cultural values and belief systems to later generations through song, dance, painting and storytelling, which express the dreaming stories, Aborigines have maintained a link with the Dreaming from ancient times to today, creating a rich cultural heritage" (Australian Government, 2015, para. 3).

Connection to land and country and Dreaming stories is central to Indigenous people's social, emotional, physical and spiritual well-being and inextricably linked to their relationships, identity, beliefs and reasons for existence. The way in which this connection to land is experienced by Indigenous people will vary depending on their context. The worldview on Country, held by most Indigenous people, is that it 'owns you' and you must respect, cherish and look after it. Their connection to land is very different from that held by many Western societies who seek to own and purchase land as a means of acquiring an economic asset and saleable commodity.

Prior to colonisation, it is estimated that there were approximately 260 district language groups and 500 dialects (Purdie, Dudgeon, & Walker,

2010). A significant number of Indigenous languages are now considered endangered, and for the most part many are 'extinct'. There are approximately 20 Indigenous languages considered 'alive' and strong, with four of these showing signs of being endangered due to the small number of older people speaking them (Purdie et al., 2008). An incredible effort is currently in place to 'reawaken' and reinvigorate Indigenous Australian languages (Hobson, Lowe, Poetsch, & Walsh, 2010), including the development of school–community partnerships to teach Indigenous languages in schools, with over 80 Indigenous languages currently being taught in 260 schools Australia-wide, taken by over 16,000 Indigenous and 13,000 non-Indigenous students (Purdie et al., 2008).

Post-colonisation: A Brief History

The following section is primarily derived from the important book titled, *Aboriginal and Torres Strait Islander Mental Health and Wellbeing Principles and Practice* (Purdie et al., 2010), funded by the Office for Aboriginal and Torres Strait Islander Health, Australian Government Department of Health and Ageing, and developed by the Australian Council for Educational Research and the Kulunga Research Network, Telethon Institute for Child Health Research specifically for mental health professionals working with Indigenous people. It "aims to assist students and others to understand a variety of perspectives about the social and emotional wellbeing and mental health of Aboriginal and Torres Strait Islander people, and to assist reflection and open discussion" (p. 2).

Europeans settled in Australia in 1770, beginning in Botany Bay in New South Wales, and then moved throughout Australia with the colonists forcibly and violently taking the land at all costs. As Indigenous people became increasingly marginalised, they fought local battles and survived as best as they could, such as the killing of farmers' livestock in order to feed their families because their traditional hunting grounds were replaced with foreign edible crops and domestic animals that they had never seen before. Their traditional fighting tools were no match for the guns, horses and military forces of the colonisers. Between the ongoing battles and diseases introduced in the form of chicken pox, measles and influenza, the numbers of Indigenous people dwindled to a point of dying out.

At this time, the welfare of Indigenous people was a state responsibility and although states had differing legislation, the themes and intent related to the treatment of Indigenous people were similar around Australia. The protective legislation that was intended to protect and care for Indigenous people in reality delivered oppression and despair. An example of this was the Western Australian (WA) Aborigines Act 1905. Although well meaning, when implemented, it ruthlessly controlled where Indigenous people lived, how they were employed and whom they married. It also took control over their property and assets and totally extinguished their cultural practices, traditions and rituals. Aboriginal people found in breach of any sections of the WA 1905 Act were fined and could face a jail sentence without an explanation. Cultural ways and ceremonies went underground and the WA Aboriginal people lived under this legislation up until around the mid-1940s. The 1905 WA Aborigines Act was administered through a Chief Protector who lived in the state's capital, Perth, and delegated his wide sweeping powers to a network of local protectors who lived in the towns. The lives of Aboriginal people were under heavy surveillance and their movements were monitored through correspondence between the local and Chief Protector. By far the most feared section of this draconian Act was the extensive powers it gave to remove Aboriginal children under the age of 16 using devious and inhumane strategies and place them in institutions.

Thousands of Indigenous children were removed and placed in institutions. Those with fair skin who could pass as white were placed in homes with the intent of breeding out their Indigenous culture and making them appear more like white people. It was believed over time this practice would breed out their 'black blood' and 'native behaviours' and over time they would conform to mainstream ways, habits and lifestyle. It was also

believed that living in a mainstream environment hundreds of kilometres from country and culture would force them to forget their previous life. Children removed from their family, country and culture under this legislation in all states are known as the infamous 'Stolen Generation'. It has had devastating consequences.

All states in Australia had very similar oppressive legislation to control Indigenous people and the long-term impact of the intergenerational and compounded trauma and stress on Indigenous families is evident in their present day lives. This link has been demonstrated by Atkinson (2002) and Silburn et al., (2006) who have provided evidence that forced separation trauma from previous Indigenous generations is linked to increased social and emotional issues in subsequent generations compared to those who do not have this feature in their family background.

Today, many Indigenous people live in poverty, which is characterised by high rates of unemployment and overcrowding in homes (Australian Institute of Health and Welfare (AIHW), 2015). Domestic violence, extremely poor health, physical and sexual abuse, very poor educational outcomes and high rates of suicide are issues that plague Indigenous people, with the life expectancy of Indigenous males being 69.1 years (10.6 years lower than for non-Indigenous Australian males) and 73.7 years for Indigenous females (9.5 years lower than for non-Indigenous Australian females). In the period from 2008 to 2012, the suicide rate for Indigenous Australians was almost twice the rate for non-Indigenous Australians (based on age-standardised rates). For 15- to 19-year-olds, the rate was five times as high as the non-Indigenous rate (34 and 7 per 100,000 population) (AIHW, 2015). These high risk and concerning factors are often linked back to the harsh legislation of the past, especially the family-destroying policy of removing and displacing thousands of children from their homes, and who, in their later years, are still trying to reconnect to family and culture today (Dudgeon et al., 2010). Of course, other factors, for example poor access to mental health services in remote communities, may also come into play.

Movements Towards Change

A referendum in 1967 gave power, concurrent to those of the states, to the Commonwealth for central legislation on behalf of Indigenous people to improve their social, economic and cultural livelihood. The second important feature of this referendum was the inclusion of Indigenous people in the Australian census. These two significant legislative changes set the scene for the start of the reconciliation journey between the two cultures. Since 1967 Indigenous people have been encouraged to take control of their destiny through programmes to improve their physical and mental health, education, training and employment opportunities, renewal of culture and movement back to country, economic enterprise and sustainable governance. However, though these programmes are hopeful, the adoption of 'doing thing *to* indigenous people' rather than 'doing things *with* Indigenous people' is still alive today as evident in the Commonwealth 'Intervention' in the Northern Territory.

The 2007 release of the Little Children Are Sacred report (Anderson & Wild, 2007) by the Social Justice Commissioner of the time, prompted the Federal Government to implement what was to become known as the Commonwealth Intervention in the NT. The Intervention aimed to improve the social, economic and health outcomes of Indigenous people. However, opinions are divided about the effectiveness and of this intervention. Either way, closing the disadvantage gap for Indigenous people remains a slow process.

There have been attempts by former Prime Ministers, including Paul Keating's famous Redfern Park speech in 1992 and more recently Kevin Rudd's momentous National Apology to the Stolen Generation in 2008, to make right the past wrongs. These are milestones in the nation's reconciliation journey but the legacy of removal remains today through alienation and colonial identity. The 2003 Western Australian Aboriginal Child Health survey found that children suffer a high risk of clinically significant emotional symptoms where either parent or primary carer were forcibly separated from their natural family

by missionaries, the government or welfare (De Maio et al., 2005).

Within the Australian psychological profession progress has been made to bridge the cultural gap and improve practices in Indigenous psychology, namely through the work of the Australian Psychological Society (APS). The APS' Reconciliation Action Plan 2011–2014 (RAP, APS, 2012) was developed in partnership with the Australian Indigenous Psychologists Association (AIPA) and Reconciliation Australia (RA). The RAP outlines four priority areas for action including respectful relationships, cultural competence (through the provision of training to psychologists), governance and Indigenous education and employment. Importantly in September 2016, at the APS Congress, the Australian Psychological Society issued a landmark 'apology' to all Aboriginal and Torres Strait Islander people for the role that the psychological profession has played in contributing to the harm and demise of Indigenous people and culture. Specifically:

"Our use of diagnostic systems that do not honour cultural belief systems and world views;
The inappropriate use of assessment techniques and procedures that have conveyed misleading and inaccurate messages about the abilities and capacities of Aboriginal and Torres Strait Islander people;
Conducting research that has benefitted the careers of researchers rather than improved the lives of the Aboriginal and Torres Strait Islander participants;
Developing and applying treatments that have ignored Aboriginal and Torres Strait Islander approaches to healing and that have, both implicitly and explicitly, dismissed the importance of culture in understanding and promoting social and emotional wellbeing; and,
Our silence and lack of advocacy on important policy matters such as the policy of forced removal which resulted in the Stolen Generations.
To demonstrate our genuine commitment to this apology, we intend to pursue a different way of working with Aboriginal and Torres Strait Islander people that will be characterised by diligently:
Listening more and talking less;
Following more and steering less;
Advocating more and complying less;
Including more and ignoring less; and,
Collaborating more and commanding less"

(see: https://www.psychology.org.au/news/media_releases/15September2016/). This apology demonstrates a genuine commitment by the APS to advance the Australian psychological profession with Indigenous Australians in a spirit of collaboration and learning.

It is now understood that if Australians are to successfully and respectfully engage with Indigenous people then it has to be through strength-based collaborative approaches with Indigenous people. Strength-based approaches avoid stigma, blaming or implying personal failing or deficit in the target group, which is a practice of the past and should not, in any way, reflect current or future work in this area.

Working as a School Psychologist in Remote Communities

Working in remote areas of Australia, regardless of profession, requires specialised knowledge and skills and a frame of mind that may not be needed in non-remote locations. The following sections provide school psychologists with some important information on working effectively with students, schools and families in outback Australia—beginning with the simple logistics of getting to work!

Travelling and accommodation. The logistics and cost of travelling vast distances needs to be well planned and accounted for. Environmental conditions can often mean that service delivery can only occur at certain times of the year when there is access to the community by road or alternatively access is by air. Safety when travelling in the vast outback is also an important consideration. Being able to drive safely on corrugated dirt roads, negotiate river crossings, change flat tyres on four wheel drives, being self-sufficient with carrying and

operating recovery gear and able to operate emergency communications such as a satellite phone are all essential skills to be mastered by the school psychologist. Being comfortable with flying in light planes to communities not accessible by road or communities isolated for periods of time by the wet season is also a necessity.

Accommodation in remote communities is scarce and this can affect service delivery. Quite often the school may be able to supply accommodation but this will be dependent on the generosity of teachers willing to offer a room in their house, as camping is not an option in communities. Many schools make every effort to offer internet access, but this can be sporadic in remote communities. Essential services can be difficult to source due to remoteness. The school is usually informed of when visiting services such as a paediatrician, audiologist or speech pathologist will be visiting the community.

Remote community schools face many different challenges to urban schools. Being so isolated means that living and working remotely can be difficult for school staff members. Therefore, the school psychologist may find that many school staff members relish the opportunity to talk with someone about what is happening in the 'outside' world. The school psychologist can expect to have many staff members approach you during the course of a visit to a remote school. However, due to the high prevalence of staff turnover, the school psychologist may also find they are having to constantly re-establish new relationships. It is therefore important to maintain contact and working relationships with local Indigenous staff to ensure continuity in relationships and to support ongoing work. Uncoordinated visits or having too many visitors at one time can also put stress on a remote school and it is important to liaise with the school Principal about a visit, so as not to overload the staff and facilities available. It is also important to know about whether or not the time that you plan to visit is Law Time.

Law time. Law time is a designated time when gender-specific cultural activities occur (Northern Territory Government, 2010). In Indigenous culture it is more important to know when it is happening and comply with protocols rather than knowing what is taking place. It is suggested you make low-key inquiries through the Community Liaison Officer or other consultants in the regional education office when this is likely to occur in the area that you plan to visit.

It is a breach of Indigenous culture, and disrespectful to traditional owners, for non-Indigenous people to travel on access roads into communities during Law time. Visitors are not permitted to enter the community if traditional Indigenous cultural practice is taking place. The word 'Country' is used to describe the land that is managed and owned by the traditional Indigenous custodians. Country can be enormous areas of land, thousands of kilometres wide. If a school psychologist was to visit a community in remote Australia, which was located on Country, it is protocol to inform the community beforehand and to get permission. This is a sign of respect for past and present practices:

> "…despite the absence of fences or visible borders, Aboriginal and Torres Strait Islander groups had clear boundaries separating their Country from that of other groups. Crossing into another group's Country required a request for permission to enter—like gaining a visa—and when that permission was granted the hosting group would welcome the visitors, offering them safe passage. For example, in some areas visitors would sit outside the boundary of another group's land and light a fire to signal their request to enter. A fire lit in response would indicate approval and welcome from the land owning group and often, on meeting, gifts would be exchanged. While visitors were provided with a safe passage, they also had to respect the protocols and rules of the landowner group while on their Country. Today, obviously much has changed and these protocols have been adapted to contemporary circumstances but the essential ingredients of welcoming visitors and offering safe passage remain in place" (Northern Territory Government, 2010).

Before visiting any remote school, always check with the Principal of a school that the timing of the visit is culturally appropriate. There are a number of cultural reasons why it may be inappropriate, including certain ceremonies that may be occurring that are deeply sensitive and that do not allow visitors. This saves a potential confronting situation of being stopped and turned away by the community.

Travelling To Work

Photo: Desert Road

Photo: Mt.Leiibig 325km west of Alice Springs in the Northern Territory, Australia.

Photo: River Crossing

Photo: Driving To Work

Photo: Driving To A Remote Community

Technology Use to Support Your School Psychological Practice in Remote Schools

Nothing beats face-to-face contact when developing relationships in the remote setting. However, by using technology the school psychologist can ensure that the one or two face-to-face visits a year are well prepared, and teachers, parents and students are supported with follow-up meetings. In fact, using email, videoconferencing, providing hyperlinks to online resources and online counselling are vital tools in the school psychologist's arsenal.

A typical visit to a remote community begins with phone contact and email, and in some cases fax is still used as written confirmation of the purpose of your visit. Where a community school may have extensive issues, a well-run videoconference with all concerned parties including visiting regional staff and local school personnel, assists to clarify the issues regarding individual students, class teacher concerns and possible whole school interventions. For the school psychologist, vital information is gleaned from previsit videoconferences and serves as a suitable introduction to school personnel to begin building those relationships.

Videoconference has become an effective method of communication and beginning to be a useful tool in emergency response situations as well. For example, a centrally located (Darwin, NT) school psychologist conducted a suicide risk assessment using videoconference to support a young person in crisis in a remote community. In the initial videoconference with the school principal, the school psychologist gleaned essential information about the immediate concerns for the student and ascertained future training needs for school personnel. Supportive school staff were then able to encourage the young person to meet with the school psychologist via videoconference to conduct a suicide risk assessment

using the Living Works ASIST[1] protocols. The school psychologist established that the young person, while upset at the time, had immediate plans to repair the relationship with her mother, learnt and practised some calming strategies and made plans to meet with the school psychologist in the near future. Follow-up intervention was also conducted electronically using email to send ongoing support strategies and resources for the school to print and use. This method of counselling has potential for providing important emergency responses to remote communities through on-call experienced school psychologists.

Establishing Culturally Respectful Relationships: Key Ingredients

School psychologists endeavouring to practice in remote Australian communities, or who come across Indigenous students in their work in schools are wise to understand the cultural and historical issues impacting these children, youth and families. Participating in formal and informal cultural awareness activities will assist school psychologists to develop strong partnerships and relationships with Indigenous families, communities and organisations. Without this, the ability to work effectively with Indigenous students, families and carers will most likely be problematic. It cannot be assumed that all Indigenous people are the same. Protocols and expectations are different and what works in one region may not apply in another context so localised training is necessary even if it has been done in another region. Cultural awareness needs to be continual and applicable. Formal training should be followed up by continuing to learn about Indigenous culture through networking and consulting with cultural consultants, reading biographies of Indigenous families, viewing movies on Indigenous experiences such as *Rabbit Proof Fence* and being present in the community.

The historical traumas that this group of people has faced, from brutal and inhumane post-colonisation practices and racist government policies, have had a resounding impact on the current mental health and well-being of many Indigenous people and communities (Koolmatrie & Williams, 2000). Reports of the health and well-being of Indigenous people repeatedly show poorer outcomes in all indicators of social health. That said, these same reports (presented in the following sections) often mask the variation, achievements and 'wellness' that is also very much present in many Indigenous communities, including the strong and loving family and community values that abound. In Australia today, Indigenous leaders are found in sport, politics and all areas of industry and community. So it is the role of the school psychologist to be cognisant of the unique and shared cultural and individual strengths of the people that they work with, be open minded and curious, and to realise that just like any other cultural label that we place on people, Indigeneity has both commonly shared and heterogeneous elements—of which some are good and others are a cause for concern.

It is in the authors' (Edwards, White and Wright) experience, that the impacts of colonisation, stolen generations and the experience of being isolated in mainstream society on mental health, mean that Indigenous young people are often marginalised and particularly susceptible to mental and physical health issues. When working with Indigenous students, the school psychologist can be faced with a context that is very different from their training. In order to be effective, the school psychologist needs a thorough understanding of various individual presentations and therapies (clinical competence) alongside an understanding of Indigenous social emotional well-being that highlights how 'unwell-ness' presents in the local context. School psychologists may need to change their practice to take account of diverse contexts, peoples and worldview in order to be effective. The school psychologist must be forever cognisant of the families' history, personal values and education and be prepared to reflect on how practice needs to change depending on the context in which they are working.

[1]LivingWorks Australia is a private social enterprise for suicide intervention training for community helpers of all kinds to work in this intervention context. Resources, training and support are available at: http://www.livingworks.com.au/programs/asist/

As mentioned previously, Indigeneity is not a homogenous concept. Indigenous people have a common identity as the First People in Australia, and a common history of dispossession, discrimination and genocide post-colonisation (Purdie et al., 2010). Today, however, Indigenous students come from a range of backgrounds, from traditional through to urban, and can have diverse languages, histories, experiences and cultural norms and understanding. Though they come from vastly different contexts, they all identify as Indigenous. Knowing this will prevent school psychologists in making the mistake that 'one size fits all' and for this reason it is important to know the context of the community you are working in and not bring preconceived assumptions. The focus, as in all psychological work, needs to be on establishing relationships. The following section will cover a number of 'need to know' understandings of Indigenous culture that will help school psychologists in their work in remote school settings.

Understanding Indigenous child rearing practices. Indigenous child rearing practices centre on independency, self-regulation and self-reliance. Siblings, relatives and friends share equal responsibility in looking after each other and the younger kin. Sometimes children as young as three are expected to make their own choices about getting their own food in the house, where they sleep and what they wear (Howard, 1991). This high level of independence from such a young age differs from mainstream Australian practices, where at the most extreme end 'helicopter parenting' is employed (Locke, Campbell, & Kavanagh, 2012). Therefore, Indigenous child rearing practises can sometimes be misconstrued by non-Indigenous people as being somewhat neglectful or undisciplined (Malin, Campbell, & Agius, 1996). School psychologists must be aware of their own value judgements around 'ideal' parenting and be careful placing a non-Indigenous framework to their analysis of family life for their Indigenous clients.

This high level of independence has an impact on student behaviour, interactions and learning in schools. Indigenous children are heavily involved with their peers from an early age, which evolves from the establishment of relationships, rather than being matched by chronological age. Young children and older children interact closely. Indigenous children also learn by watching others and letting others help them (Howard, 1991). As independent learners they may not see a need to comply with common classroom rules, such as asking for permission to have a drink or go to the toilet. Leaving the classroom to attend to basic needs, without asking for permission may lead them to being reprimanded by teachers who are unaware of this cultural norm. Indigenous children can feel confused about mixed messages or not understand the logic of seeking permission from a teacher since at home they do many things independently.

Acknowledging that 'English' may not be a first language. Indigenous populations across Australia speak a range of languages in addition to English (Hobson et al., 2010). The Indigenous language spoken is highly correlated with their residential location. Indigenous people living in more remote locations are less likely to speak English well or at all. In remote communities, the amount of exposure to English can vary, particularly for those students who have gaps in their learning and live a more traditional lifestyle. For many remote Indigenous students, English may only be heard at school and may be considered a foreign language. It is very important that the school recognises and acknowledges this and structures the learning and teaching programme to cater for their students' language needs. The school may be the only place where Indigenous students are explicitly taught to switch between their first language and English. Generally Indigenous students, where English is their second language (commonly known in Australian schools as *ESL students*), will converse with each other in their first language, both in the classroom and in the playground.

Respecting 'Sorry Business'. 'Sorry Business' is the term used to describe a cycle of bereavement and mortuary processes around the death of an Indigenous person (Carlson & Frazer, 2015). The deceased standing within the Indigenous community

influences the length and scale of the process and it may be months before the funeral takes place. Extended family may have to travel long distances as well as being expected to bring gifts for the bereaved family, making timing important. Families may have to wait for welfare benefits or to save necessary funds to cover expenses associated with funerals, which may take weeks for this to happen. Cultural obligations play a crucial role in the lives of Indigenous people and having to comply with Sorry Business impacts on school attendance and student transiency/mobility. If ceremonies and funerals clash with schooling, many parents and carers will choose their cultural obligations over schooling, which results in Indigenous students in remote and rural communities having large gaps in their learning.

In some areas of Australia, it has been found that Indigenous people are eight times more likely to have attended a funeral in the previous 2 years than non-Indigenous people. Anderson et al. (2012) and Sorry Business impacts greatly on young people's emotional well-being if they are regularly attending funerals. With the life expectancy of Indigenous people (73.7 years for women; 69.1 years for men) being significantly lower than that of non-Indigenous Australians (83.1 years for women; 79.7 years for men) and with two-thirds of deaths occurring before age 65 (AIHW, 2015), sometimes young people do not have sufficient time to fully recover from grieving before they are attending another funeral. It is particularly distressing to attend funerals of those attributed to suicide (4.8 % of Indigenous deaths overall; 29 % of Indigenous deaths of people aged 15–34, AIHW, 2015), violence and health-related causes, making compounded grief and trauma one of the many risk factors in their life, a risk factor that school psychologists must take seriously. In Anderson et al.'s study, one participant reported attending eight funerals in 13 days, of which three were attributed to suicide and one death being a result of violence. To compound this risk, there is emerging evidence around the growing trend of Indigenous use of social media in relation to Sorry Business, such as announcing a death on Facebook for example (Carlson & Frazer, 2015), which is another possible risk factor that school psychologists need to take into account when working with Indigenous youth exposed to such information on a regular basis.

When there is a death in the community the name of the deceased cannot be used, which means that any students with the same name as the deceased will be given another name. For very traditional students, the parents or carers will request that any photos of the deceased are removed from sight, as it is culturally important not to view photos of deceased. Some urbanised Indigenous families still practice this ritual. Traditional Indigenous grieving practices include ceremonial singing, crying and wailing, gathering together as a connected family group to grieve together, dealing with blame (if somehow responsible in some way with a death) and telling stories (McGrath, Fox-Young, & Phillips, 2008). The authors (Edwards, White and Wright) have also, in their work as school psychologists, witnessed more disturbing methods of grief, such as self-harm, and so the school psychologist may find Indigenous bereavement processes personally confronting.

School psychologists need to remain alert to behavioural indicators of grief in students and staff, ensure any gossip or rumours related to a death are brought to the attention of the Principal so they can be dealt with appropriately and concessions made to ensure student well-being. Local community politics must be separated from the primary role of supporting grieving students and staff—it is best to remain at arm's length and to keep strong boundaries. Guard against making judgements on the impact of cultural obligations on school attendance and adopt flexible strategies to cope with this.

Working Effectively with Indigenous Students in Remote Settings

In many of the key general population indicators of child and adolescent educational, social and psychological well-being, Indigenous children and young people fair poorer than their non-Indigenous counterparts. For example, each year,

throughout Australia in May, students in Years 3, 5, 7 and 9 participate in the National Assessment Program—Literacy and Numeracy (NAPLAN) tests, covering competence areas in five areas: reading, numeracy, persuasive writing, spelling, and grammar and punctuation. In 2014, the proportion of Indigenous students who met the national minimum standards in each of the five areas declined accordingly with increasing remoteness. And while the Year 12 retention rate of Indigenous students is increasing (currently 55 %), it falls well short of the retention rate for non-Indigenous young Australian (83 %, AIHW, 2015). Whilst there are signs of Indigenous–non-Indigenous equity in certain areas and sectors of Australia, overall Indigenous school attendance rates are lower (AIHW, 2015). Finally, the most recent mental health statistics reveal Indigenous children aged 4–14 years were statistically significantly more likely to have a long-term mental or behavioural problem compared with non-Indigenous children (13 % compared with 8 %) (ABS, 2004–2005). Needless to say, working in this context is a challenge.

When working with Indigenous students in remote settings the school psychologist needs to be mindful of the limitations of their role and the degree to which they can successfully intervene in issues and improve educational outcomes. There are some factors out of the sphere of influence of the school psychologist's role that may impact on one's ability to be effective. These factors are complex and relate to a range of sociocultural circumstances, such as disadvantage, poverty, low literacy, marginalisation and unresolved traumas, sometimes in an entire community. For example, students may come from a home environment where there is severe overcrowding in the family home, inadequate nutrition, poor health and a high degree of stress or conflict. Many of these issues are what we can describe as 'multi-domain', meaning they fit under a range of community, health, justice and education services sectors.

Working within the constraints of poor attendance. Universally, engagement of students is typically measured by the level of attendance and participation in school, and is influenced by effective teacher–student relationships, strong disciplinary classroom climate and achievement and progress at school (Programme for International Student Assessment, 2000[2]). School attendance in remote settings is particularly poor (ABS, 2011) and 20 % of the gap in Indigenous performance at school can be explained by this issue. The Indigenous attendance rate in very remote areas (67.4 %) is considerably lower than the attendance rate of Indigenous students in metropolitan areas (86.5 %) (Commonwealth of Australia & Department of the Prime Minister and Cabinet, 2016). The Remote School Attendance Strategy (RSAS) was developed in partnership with communities to improve attendance in remote communities. A feature of RSAS is that it employs local people to work with parents and carers, the community and schools to support children to go to school every day. In 2014 and 2015, it operated in 73 schools across 69 remote communities. "Attendance data published on My School shows that out of the 73 RSAS schools, 49 schools saw their attendance rate rise, 21 schools experienced a fall and three schools had no change in their attendance rate from Semester 1, 2013 to Semester 1, 2015. RSAS has been extended for a further 3 years from 2016 to 2018 with an additional $80 million in funding" (Commonwealth of Australia, Department of the Prime Minister and Cabinet, p. 18).

It is useful for school psychologists to understand the known factors that influence non-attendance in this area, which have been grouped into four categories: school factors (i.e. lack of a culturally appropriate curriculum and school environment, Indigenous staff members, language, leadership); family factors (i.e. family's experience with education, socio-economic status, parent's own level of literacy and numeracy); structural/community factors (i.e. remoteness, transport, employment opportunities); and student factors (health, school readiness, safety and security, attachment to school/education) (AIHW, 2014). By understanding the

[2]Programme for International Student Assessment (PISA) is a worldwide study by the Organisation for Economic Co-operation and Development.

why of non-attendance, school psychologists are then able to work with the school to apply targeted interventions to help reduce the impact of these school-attendance barriers. Interventions that have been shown to be successful in raising the level of school attendance of Indigenous students are when:

- Schools employ whole-school approaches and attendance monitoring programmes;
- Families discourage poor attendance and feel connected to the school and community;
- The community structures support attendance by means of school–community partnerships and provision of transport to school;
- Students engage in literacy and numeracy programmes, and
- Students are given incentives for participating in school and are offered school-nutrition programmes (i.e. food is provided by school when required).

A handy model that school psychologists can use with schools to identify and respond to the problem of attendance (and any other issue for that matter), that has been shown to effectively increase Indigenous children and young peoples' school attendance is that schools follow these four steps:

- The school needs to first recognise the importance of attendance as an issue.
- The school must then identify individual students for whom non-attendance is an issue.
- Work must be undertaken to understand the reasons behind non-attendance.
- The school must finally develop and implement effective strategies that address those issues and that enhance the likelihood that children and young people will attend school regularly (AIHW, 2014).

A factor that may be identified as affecting Indigenous students' school attendance in remote areas is the high level of mobility amongst this group (Prout, 2009). A study by Taylor and Dunn (2010) provided evidence of this phenomenon in remote areas of the Northern Territory, which can be due to a range of cultural, environmental and other situational factors. For many Indigenous families this mobility is often unexpected. Some reasons include cultural obligations, family commitments, community dysfunction, employment opportunities, sporting or cultural events or to access health services provided in regional centres. Mobility can mean that some Indigenous students attend a number of schools in any given year and the continuity of schooling can be affected. In fact, in a study of Indigenous-student mobility in a Western Australian region, one school principal explained that, "it was not uncommon for 100 % of a class population to turn over in a given year" (Prout, 2009, p. 44).

Therefore, the school psychologist should 'expect the unexpected', and not anticipate that on any given day they will see all their students in a particular school as planned, whilst at the same time work towards achieving an outcome where attendance is expected and therefore increases. Mahuteau, Karmel, Mayromaras, and Zhu (2015) found that if Indigenous and non-Indigenous students achieve the same level of academic achievement by the time they are 15, there is no significant difference in subsequent educational outcomes such as completing Year 12 and participating in university or vocational training. And in achieving this comparable level, sometimes it may be necessary for the school psychologist to find the location of an absent student from within the community. When engaging with students outside of the school setting, this needs to occur under the direction of the Principal and with advice from an Indigenous home liaison officer or cultural consultant, which may result in bringing the family back to school or sitting with the family at an agreed location to discuss 'business'.

There are cultural protocols around working with Indigenous families, and school psychologists need to be flexible in their approach and work. Do not expect to work to a scheduled timetable with set appointment times, as generally the family of a student will come to the school when they are ready. Time is flexible and is referenced by events within the day that may be driven by morning tea, lunch or community organisation. The school psychologist needs to adjust their work practices accordingly. Seating arrange-

ments are important, particularly in relation to male and female proximity. Always meet in a place that is comfortable for the family; for example, sitting outside in a shaded area is often the most comfortable place to meet with Indigenous people—be guided by the family.

Changing the Way Indigenous Education Is Delivered

In the past, the delivery of schooling to remote Indigenous students has been mostly from a mainstream perspective only. The pedagogy of schools perpetuated the values, attitudes and beliefs of mainstream society and was very foreign to Indigenous students, parents and carers. There was very little commonality between mainstream school culture and Indigenous culture; however, we now know that by just having an Indigenous worker in a school, that this significantly impacts Indigenous children's attendance (i.e. study of preschool attendance by Biddle, 2007). In recent times, governments, schools and communities have made genuine efforts to change Indigenous education. Strategies such as incentive programmes, improvement to literacy and numeracy skills, school–family partnerships, transport to school, monitoring attendance, ensuring that school is a welcoming place for Indigenous students and programmes that focus on non-academic achievement have been employed (AIHW, 2014). A more culturally inclusive curriculum, which is demonstrated through the 'Two Way' approach (Harris, 1989), aims to integrate Indigenous culture into every opportunity of school operations from employing Indigenous people to teach, making the curriculum inclusive and by consulting and collaborating with community elders. To truly be Two Way, schools need to employ local people in the school, actively engage them on boards and councils and respect and trust them as cultural consultants on education matters. According to Harris:

> *"A two-way Aboriginal school might therefore be designed primarily to assist in the socialisation of Aboriginal children into becoming bicultural Aboriginal people. It is one where at all levels of staffing, the teaching/learning content, languages of instruction, teaching styles, contexts for teaching and timing of teaching are separately responsive to each culture"* (Harris, 1989, p. 18).

Due to the differences between Indigenous and mainstream culture, the application of bicultural education has its challenges. Experience demonstrates that very few schools have successfully implemented and sustained Two Way schooling according to Harris' definition, but equally to say, many have worked very hard at implementing parts that work for them. Furthermore, there is a need to conduct systematic studies into the effectiveness of the Two Way approach so that educators can confidently determine whether it is the best method for 'closing the gap' in remote Indigenous communities. It is an issue that is highly politicised and much debated, and robust scientific evidence is needed. Conservatives advocate for more punitive measures, such as reductions in economic benefits for Indigenous families, when school attendance and economic participation is low (Johns, 2006). However, in the authors' experience, when schools are on a Two Way journey with their community, they are effectively empowering parents and carers to have control over the type of schooling they want for their child, and as such, Indigenous culture is incorporated and respected by all with exceptionally good benefits.

Building trusting relationships. The three key factors of success with Indigenous students and their families are as follows: 'Relationship, relationship, and relationship'. Haebich's (1998) comprehensive description of the forcible removal of Indigenous children shows how these events are still a deep part of the journey of Indigenous people today and how intergeneration trauma impacts on the relationships and trust Indigenous children and families develop with teachers, school psychologists and other service providers. Families may hold the handed-down negative beliefs and experiences of schools of their grandparents who were in orphanages or homes where they were not treated fairly and were often subjected

to abuse. The ingrained recall of these experiences has resulted in a growing distrust of education institutions that needs schools to take the time to establish and maintain positive relationships.

Indigenous students, families and carers are subject to constant turnover of teachers and other school support staff (Price, 2016) making it imperative that strong and honest relationships based on fairness, trust and respect are developed for everyone's benefits. It is important when meeting Indigenous families for the first time to make a good impression as they have been subject to many failed attempts of assistance and so can pick up early on the school psychologist's level of commitment. If Indigenous families sense that a non-Indigenous support person is not taking them seriously, they will ignore them and disengage, and this can serve to further deepen mistrust of non-Indigenous support workers.

Westerman (2010), who developed an interview protocol for practitioners to explore cultural beliefs of Indigenous youth, called the Acculturation Scale for Aboriginal Australian Youth (ASAA-Y) (Westerman, 2003) provides good advice on the key elements needed to engage Indigenous young people in mental health services. She emphasises the need for the mental health service provider to be highly culturally aware and competent. Practical advice includes:

- Taking the time to establish rapport by understanding the client's family relationships, which requires the therapist to self-disclose their own family and cultural background;
- Assessing young people within their own cultural setting and familiar environment to avoid misdiagnosis;
- Understanding the Indigenous interpretation of mental ill-health (as often being attributed to some external forces, such as 'pay back' for wrongdoing);
- Ensuring that if you are using a cultural consultant (to attend therapeutic sessions) that there is no cultural reason why the particular consultant should not be used. It is necessary to avoid any power imbalances and gender or tribal issues that may be present by the client to nominate a cultural consultant themselves;
- Not asking young people to provide direct answers so as to not create an experience of shaming in the client, but instead create a more narrative, story-telling and open-ended approach to gathering information about a presenting issue;
- Utilising culturally appropriate counselling techniques; and
- Receiving cultural supervision by a local cultural expert.

Drawing on results of a study conducted in Western Australia, Westerman (2010, pp. 220–221) has summarised 11 steps for effective therapeutic engagement with Indigenous young people:

Step 1: Consider the location of therapy: this must be natural and incidental and preferably within the client's own home or community to reduce the potential for bias associated with being assessed outside of cultural context. Ask the young person to select the location.

Step 2: Sit or stand side by side with the Aboriginal clients, looking down at the ground in front of you and checking in with them occasionally. This addresses any cultural concerns regarding level of eye contact (assess this relative to nonverbal cues regarding their comfort with this) and also aims to reduce anxiety that Aboriginal youth may experience about being put on the spot to provide a direct answer to a direct question.

Step 3: Notice and acknowledge any nonverbal expression of illness or discomfort. This is best expressed via Aboriginal views of mental health and well-being instead of in illness terms (i.e. the disease model is not appropriate). Comment is made on a general sense of "not being well within themselves" or "not looking too good" in themselves (as opposed to looking depressed, anxious or sad).

Step 4: Introduce self the Aboriginal way. This means contextualising your own self in relation to your land/country as well as cultural background or origin. Ask the youth to contextualise themselves in relation to their land and country. Ask questions such as: *Who are your mob/people*? *Who are your tribal group or people*? *Where is your country*?

Step 5: Make a statement about any cultural or gender differences between you and the Indigenous youth by making comment on this difference and invite them to comment on whether this is an issue or how they feel about this.

Step 6: If these differences are seen as an issue, ask the client to nominate a cultural consultant (to minimise extent of cultural bias in assessment process). Engagement of cultural consultant must occur with regard to the cultural appropriateness of the person. Assess whether there are cultural factors operating for the cultural consultant, including: (a) men's versus women's business, (b) avoidance relationships, (c) different tribal grouping and (d) community infighting. Ask the question: *Is there any cultural reason why you can't be involved with this client?*

Step 7: Negotiate limits to confidentiality. That is, that things will remain private, but if the client states that they will harm themselves or someone else you will have to breach that confidentiality. This must occur in negotiation with the client and the focus is on the absolute transparency of practice. This means you have to discuss (a) who you will tell through prior negotiation with your client, and (b) exactly what will be told, that is: 'Only the information regarding your risk to self and others'. This addresses issues of trust that is often a concern for Aboriginal youth.

Step 8: Discuss or negotiate issues regarding possible payback or retribution with community or family of youth, particularly in the case of at-risk suicidal youth. This needs to occur prior to your involvement with the youth and may also need to occur on behalf of the cultural consultant if necessary to ensure their involvement, particularly with at-risk Aboriginal youth. 'Payback' refers to a process whereby Aboriginal communities determine appropriate punishment or retribution for the committal of an offence or cultural transgression. Payback can also occur as a result of the perceived failure of Aboriginal people to protect or look after those towards whom they have an obligation (through familial or cultural ties). This has been known to occur in the case of Aboriginal suicides but may not be the case for all Aboriginal people and requires determination.

Step 9: Engage at the cultural level with the client. Discussion should occur around their belief system and the extent to which this impacts on assessment and therapeutic process using the ASAA-Y.

Step 10: If the client has a strong connection with their Aboriginal belief system, offer the option of resolving the problem through traditional or Westernised methods of therapy (or both). The practitioner, however, must have the cultural competence to be able to facilitate this process through the engagement of an appropriate cultural consultant and to determine whether the community deems this to be appropriate.

Step 11: Assess level (or hierarchy) of intervention that has already occurred within the community. (Westerman, 2010, pp. 220–221; for more information about Westerman's work in this area visit: www.indigenouspsychservices.com.au).

Engaging in collaborative practice. Most schools in Australia have Indigenous non-teaching personnel who are there to support teachers and to be the link between the school and Indigenous community. Sometimes they are based at the school or off-site in the State or

Territory's Department of Education. In Western Australia government schools, the support teachers are called Aboriginal Islander Education Officers (AIEO) and were an innovation that started in the early 1980s. An important part of their role is to support Two Way teaching approaches and to provide advice and support to the principal and teachers on Indigenous education. Their title will vary from state to state and within education sectors, but their role is fundamentally the same. School psychologists working with Indigenous students should actively seek them out and work with them to adopt best practices, which include arranging home visits to meet and inform parents and caregivers of their role. It is helpful to have the AIEO present when seeking parent permission and doing student assessments or explaining information to parents and carers. During interagency and senior management meetings, they bring valuable information on the home background of students. In the authors' experience, they are the cultural link between the school and a student's home life, and provide a sense of continuity for families if staff members and principals move on.

Other Issues That May Require School Psychologist Intervention

Physical and sexual abuse and neglect. Unfortunately, the rate of substantiated notifications (an investigated case where a child has been deemed to be at risk of harm, abuse or neglect) to child protection services in Indigenous communities is significantly greater than in non-Indigenous communities. Indigenous children are 7.8 times as likely as non-Indigenous children to be the subject of a substantiation of a notification (41.9 and 5.4 per 1000 children, respectively), 9.7 times as likely as non-Indigenous children to be on care and protection orders (54.9 and 5.6 per 1000 children, respectively) and 10.3 times as likely as non-Indigenous children to be in out-of-home care (55.1 and 5.4 per 1000 children, respectively). In terms of the type of substantiation carried out, the rate of Indigenous children who were the subject of a substantiation of neglect was 12 times the rate for non-Indigenous children and the rate of substantiated physical, emotional and sexual abuse for Indigenous children was between 5 and 7 times the rate for non-Indigenous children (AIHW, 2014). The National Framework for Protecting Australia's Children 2009–2020 (Department of Families, Housing, Community Services and Indigenous Affairs, 2012) aims to substantially reduce child abuse and neglect across Australia and to reduce the over-representation of Indigenous children in child protection systems. It is an issue that many academics, policy makers and community members—Indigenous and non-Indigenous alike are grappling with. However, in the meantime and for those working as educators and support professionals in the field right now, such as educators and school psychologists, it is one that is deeply challenging both professionally and personally.

Foetal Alcohol Syndrome (FAS) and Foetal Alcohol Spectrum Disorder (FASD). In 2009, Aboriginal leaders in Fitzroy Valley in north Western Australia instigated the Lililwan[3] Project, a population-based prevalence study into the levels of FASD in school-aged children in their local community (Fitzpatrick et al., 2012). The recently published results of the study concluded that the population prevalence of FAS or partial FAS in remote Aboriginal communities of the Fitzroy Valley is the highest reported in Australia and similar to that reported in high-risk populations internationally (Fitzpatrick et al., 2015). FAS has considerable impact on children in schools, and school psychologists working in remote settings need to familiarise themselves with the behavioural symptoms of FASD in early childhood. FASD is severely undiagnosed, so it is certainly not helpful to wait for a diagnosis before providing early intervention. In the authors' (Edwards, White and Wright) experience the following behavioural symptoms are evident from early childhood and always include abnormal brain function, which create barriers to learning:

[3]Lililwan is 'all of the little ones'—a local language (Kimberley Kriol) word meaning.

- Distractibility
- Hyperactivity
- Poor short-term memory
- Sensory processing difficulties
- Difficulty in understanding abstract concepts
- Social communication difficulties
- Difficulty in generalising information from one situation to another
- Frustration at not being able to do or to remember

Impairments in motor skills are another common feature of this disorder (Lucas et al., 2016). In regard to behavioural difficulties, the authors recommend that providing structure and routine and a consistent, predictable environment assists in minimising reactive behaviours. The child with FASD needs forewarning of the next subject and the next break. Transitions between activities are particularly stressful so alert an upcoming change with a bell or music. Environment adaptations like de-cluttering the room, putting things away after use, having clear wall space free of posters and covering objects with sheets assist to avoid distractions. Each student with FASD is different and consequently, a differentiated curriculum is imperative. Again in the authors' experience, generally the following strategies are relevant for improving outcomes for students with FASD:

- Visual, interactive and concrete teaching
- Prepare student for transitions
- Keep instruction simple, concrete, one at a time
- Identify behaviours that indicate frustration (anger or avoidance and teach appropriate responses daily, or in context (teachable moments)
- Teach and continue to teach specific social skills in context repeatedly
- Model appropriate behaviours

Conductive hearing loss. For Indigenous children, one of the most common health problems is Otitis Media or conductive hearing loss, with identified root cause being disadvantage and poverty through issues such as household overcrowding, passive smoking, premature birth, bottle feeding and malnutrition (AIHW, 2014). The Menzies School of Health Research reports that 9 out of 10 Indigenous children experience some form of ear disease and one in six children will have burst eardrums. Community-based epidemiological studies in remote communities in northern and central Australia have found more than 90 % of Indigenous children aged 0–5 having Otitis Media (Morris et al., 2005). These prevalence rate figures are not only startling but even more concerning when one considers the impact that this condition has on student educational engagement and learning. Furthermore, the impact of hearing loss on children who already have ESL issues can confound language-related issues (Aithal, Yonovitz, & Aithal, 2008).

Otitis Media is intermittent and a hidden disability and teachers are often unaware of the significant leaning difficulties associated with this condition. Howard (1991) reports that hearing loss can be related to behavioural issues in the classroom and that "many social responses that are related to hearing loss are similar to the diagnostic criteria for ADHD" (p. 2). To assist students with hearing loss in the classroom, many remote teachers in the Northern Territory use sound amplification hearing systems within the classroom. Many students with chronic hearing loss may wear hearing hats or bone conductor hearing aids. Unfortunately, there have not been any studies to show the effectiveness of classroom adjustments for these children (AIHW, 2014).

Cognitive Assessments: Lessons from the Field

The following information on cognitive assessments is mostly derived from the experiences of authors: Edwards, White and Wright through their extensive work as school psychologists in remote areas of Australia.

Conducting assessments. An important part of the school psychologist's role with remote

Indigenous students is conducting cognitive assessments to assess learning needs and deficits. How the school psychologist interacts with the student requiring a cognitive assessment must be considered carefully, because if not done appropriately, the results from the assessment may be invalid. Allow much more time to undertake and complete assessments with remote Indigenous students. Working in a cross cultural context requires much more investigation and gathering of information which should be from a range of sources, including the school, family, community perspective and from clinical observations. Language and cultural information are important components of the assessment process and need to be considered. As there are many more factors, which may account for poor learning and progress at school, caution should be applied in drawing conclusions based on test results alone.

Each of the state education departments will also have assessment guidelines for school psychologists testing Indigenous students. School psychologists should consult the relevant policies and be familiar with these guidelines before undertaking assessments with Indigenous clients. The following guiding principles will also assist a school psychologist to improve their knowledge and understanding of how best to work with Indigenous students and families. These principles are a starting point to working with the Indigenous cultural consultant in your school or regional office. The Indigenous consultants provide valuable advice on how to work effectively and respectfully with Indigenous students and families.

Gathering contextual information. Based on experience with working in remote communities, information needs to be synthesised from the school context, the family and community perspective, as well as from clinical observations and the individual's test results. In addition, a comprehensive developmental history needs to be gathered. For example, developmental milestones, health information, attendance history, first language development, general skills compared to peers of similar linguistic and cultural background and information about the student's functioning within their own community compared to their peers.

Classroom observation, as well as observations in the playground context and the testing setting can enrich the information gathered. To rely solely on test scores is inappropriate when working with Indigenous students since Indigenous-specific norms for tests are not available. A key question is: *How does this student compare to their peers who have had similar opportunities and experiences*? Consider the norm for the cohort of students within the community rather than comparing with mainstream norms and expectations. Also consider that the norm for an Indigenous student in a remote community school can be very different to the norm in a town school, which can have very different meanings and implications for educational adjustment. The examiner has to be aware of the impact of their own values and experience and how this may impact on the test situation. Interactions and behaviour can be different across cultures and drawing conclusions based on a Western perspective may possibly be misleading, so taking an Indigenous perspective about the context or behaviour that occurs in the assessment session is required.

If the Indigenous student being assessed has limited English skills and an interpreter is not available, inviting a family member to the assessment setting is beneficial in providing support for the student and at times for first language translation purposes. This also provides a good opportunity for the family and the school psychologist to work together. Open-ended statements and questions are best. The school psychologist needs to remain quiet and patient while waiting for a response because often there will be a discussion in language prior to information being provided in English.

The physical setting of the test environment can possibly influence testing outcomes for remote Indigenous students. The school psychologist needs to be flexible with where an assessment is conducted. Some Indigenous students may not have the confidence to work independently with a stranger. The school psychologist needs to spend time interacting and developing the relationship

with the student prior to undertaking any assessment. For example, to single an Indigenous student out for an assessment in front of their peers may cause "shame" to the student and therefore affect their performance. It may be more appropriate to be outside under a tree, or in a quiet spot within the classroom in view of the student's peers or in a quiet room with another student as a support. Sitting side by side is often preferable as this allows an Indigenous student to feel more comfortable, as direct gaze is then averted. Adjusting traditional work practices, being flexible and taking advice from those who know the student well can assist the examiner to lessen any examiner bias.

Silence and gesture are common when working with Indigenous students and can carry meaning of which a non-Indigenous school psychologist may not understand. Silence can mean a number of things, for example, to indicate that the student has finished the task, or the student needs a longer period of time to consider a response, or the student does not see it necessary to give a verbal response. It is also common for Indigenous students to respond in a nonverbal manner or to whisper a response. Be very careful to listen for whispered responses, as asking the student to repeat the response may cause the student to assume the response is incorrect and they may not respond further.

Assessment tools. Most assessment tools used by school psychologist are designed for non-Indigenous children and young people. The values, beliefs, designs and language in assessment tasks may not suit many Indigenous children and therefore may disadvantage them even before they start. Indigenous children may not respond to direct questioning as this may be unfamiliar to the student, or the student may not see the point of providing an answer (Harris & Harris, 1988). This is an important issue when considering the structure and format of many psychological tests, particularly the verbal subtests. Work with the cultural consultant in the school or regional office to make the tests as appropriate as possible without taking away from the main intent of the task or assessment. Many Indigenous students come from a different worldview and learn in a different way, making it essential to incorporate a variety of teaching approaches to capitalise on the strengths they bring to learning.

The language of tests. Selecting the appropriate test for an Indigenous student who is an English as Second Language (ESL) speaker is critical. An inappropriate choice of tests can lead to an underrepresentation of an Indigenous student's abilities. A student who has not learnt English or has only been exposed to English for a few years may be disadvantaged. Conversational English can be very different from understanding the concepts and words used in a comprehensive cognitive test. Use an interpreter and a nonverbal measure of general ability to eliminate language as a factor in performance.

Nonverbal tests. For remote ESL Indigenous students, if cognitive tests are used, the tests should be nonverbal (e.g. Universal Nonverbal Intelligence Test, Leiter-R, Wechsler Nonverbal Ability Test, Naglieri Nonverbal Ability Test). Not all words or concepts can be directly translated accurately into a second language. Therefore to use verbal tests is really testing the student's understanding of English rather than the understanding of the concept of the test. Bernstein and Tiegerman-Faber (1997) report that:

> "…a child learning a second language may take two to three years to achieve social proficiency in basic interpersonal communication skills in the second language in including vocabulary, morphology, and syntax to make his or her needs known, share information and repeat and paraphrase information. It may take 5 to 7 years to attain the cognitive academic language proficiency to be able to use language to analyse, synthesize and evaluate language in the academic curriculum" (p.388).

Nonverbal tests eliminate the use of language—although not culture. Culture can be reflected in the content or use of subtests, which may not be as familiar to Indigenous children and young people, such as, for example, timed subtests. Some nonverbal ability tests are delivered with verbal instructions while others require instructions to be demonstrated through pantomime or gesture. Nonverbal tests such as the Universal Nonverbal Intelligence Test, Leiter-R, Wechsler Nonverbal Ability Test and Naglieri Nonverbal Ability Test have the advantage of

minimising or eliminating language; however, it is also recognised that the content of some subtests can be culturally biased. Nonverbal ability tests have been criticised on a number of levels; however, there are strong correlations reported between nonverbal ability tests and comprehensive cognitive tests. McCallum, Bracken, and Wasserman (2000) report:

> "…given the strong correlation and comparable mean scores between some nonverbal IQ tests (Leiter-R and Universal Nonverbal Intelligence Test) and traditionally language loaded intelligence tests, one could conclude that these instruments do measure the same construct as language loaded intelligence tests, and that this construct is general intelligence" (p. 9).

If delivered and interpreted appropriately, some psychological tests can be useful to provide direction for an Indigenous student's education, providing that safeguards are put in place and caution is applied when interpreting test results.

Behavioural assessments. Mental health issues for Indigenous young people may not manifest in the same behavioural symptoms as for non-Indigenous children and young people. For instance, school psychologists often see reactive externalised behaviours that seem impulsive and hyperactive, such as yelling in language, swearing, running away or hiding. These are common behaviours of children acting out when they feel challenged, teased or emotionally labile. Other externalised and physically aggressive behaviours such as hitting, punching or kicking are regularly observed rather than negotiation, discussion or working things out through conversation.

On a standardised measure of behaviour, like the Achenbach scales (Achenbach & Rescorla, 2001), these young people invariably are identified as 'oppositional' or 'conduct disordered' or meet clinical levels of ADHD. Formal testing as part of a comprehensive assessment battery in the school psychologist's office may be more a reflection of cultural inappropriateness of the practitioner's approach rather than mental or behavioural disorders per se. It is recommended that Westerman's (2003) 11-steps presented earlier in the chapter for engaging Indigenous youth be incorporated into the school psychologist's practice. Westerman also calls for any practitioner using these methods to document the details and validate the usefulness of the methods across different communities.

Well-being assessments. A limited number of social–emotional well-being screening tools have been developed or adapted for use with Indigenous students. Summaries of these tools and their prospective uses are available at the Social and Emotional Wellbeing and Mental Health Services in Aboriginal Australia website: http://www.sewbmh.org.au/page/3662. Comprehensive social emotional well-being assessment uses triangulation, gathering information on the target behaviour from the school and classroom context, as well as finding out how the young person presents in their home and family environment.

Intellectual disability and adaptive behaviour assessment. If the school psychologist is asked to identify intellectual disability, there needs to be a comprehensive assessment conducted, which incorporates information from a wide range of sources, including the school, family and community perspective. Simply relying on test results is not appropriate as this may lead to a deficit interpretation of the information.

The appropriateness of traditional adaptive behaviour scales is also questionable and may be irrelevant for the many Indigenous students who live in remote communities and live a more traditional lifestyle. One example of an inappropriate question is one that requires children to know a street address or postcode. In Indigenous communities, a residence is usually referred to by characteristics like "the blue house at top camp". Furthermore, it may be more helpful to benchmark an individual's performance against their peers, which would require close consultation with the student's teachers. Adaptive behaviour, therefore, may need to be considered from an Indigenous perspective.

School Psychologists' Self-Care

School psychologists must take care of their own well-being. Travelling and working in remote schools can be rewarding, but exhausting, and the

school psychologist must also balance their own family and personal life with the amount of time spent away from their home, social networks and community. A few suggestions are to consciously invest in maintaining one's own family links, engage in an interest or hobby, maintain professional dialogue with other school psychologists, seek regular supervision and connect with colleagues who have a 'can do' attitude who focus on how things can be done, rather than engaging in problem talk or a sense of defeat, burnout and hopelessness.

Working with marginalised students and families can become overwhelming for school psychologists and they should factor in an opportunity to debrief after a trip away. Continual crisis and complex challenges in the workplace can make it difficult to appreciate any gains made. It is important to appreciate and celebrate incremental improvement regardless of how small they are. It is equally important to guard against 'saviour mode'.

School psychologists play a powerful and important role in strengthening the social and emotional well-being of Indigenous students. Helping students to have control over their emotions, to engage in learning and to be strong within themselves and their culture will assist them in all that they do in life and the school psychologist should take pride in knowing they have been a part of their growth. Maintaining good self-care and knowing one's sphere of influence will greatly assist with job satisfaction and one's own sustainability in this role.

Conclusion

This chapter has presented an overview of the nature of working as a school psychologist in remote communities, presenting the reader with the historical context that influences the health and well-being of Indigenous people today. The post-colonisation history of Indigenous people cannot be ignored, and the current state of well-being—health, social and education—is related to this past, and hence is alarmingly poor in many areas. It is promising that the Australian school psychology profession has committed to creating better relationships with Indigenous people and developing the Indigenous psychology profession, and this needs to occur in the school psychological context as well. Remote school psychology professionals like Edwards, White and Wright have demonstrated the practice 'wisdom' evident among school psychologists working in this area. It is quite obvious that these school psychologists play an important role in the lives of Indigenous Australians, but also gain a lot from their work as well. The beauty of the remote Australian landscape and the enjoyment that comes with the many opportunities to engage in rich cultural exchange makes working as a school psychologist in remote Australia a very special job indeed.

Test Yourself Quiz

1. Describe the impacts that 'the stolen generation' has had on the mental health and wellbeing of Indigenous families who have exprienced a family member being forceably removed.
2. 'Indigenous people are not a homogenous group' - explain your undersanding of this concept and why school psychologists need to understand this in their work with Indigenous children, young people and families.
3. What types of specialist skills do school psychologists need if they want to work in remote Australian communities?
4. Where can school psychologists go to for information about how to work efffectively with Indigenous people?
5. How can technology be utilised to support the work of school psychologists providing services in remote settings?

Useful Resources for School Psychologists Seeking to Better Understand Indigenous Issues and Culturally Sensitive Psychological Practices

The following information provides links to important resources for school psychologists interested in seeking a better understanding of Indigenous issues and culturally sensitive

psychological practices. It also provides a link to the Australian Psychological Society's Reconciliation Action Plan for Psychologists.

Key Government and Policy Reports

Bringing Them Home Report

"This report is a tribute to the strength and struggles of many thousands of Aboriginal and Torres Strait Islander people affected by forcible removal. We acknowledge the hardships they endured and the sacrifices they made. We remember and lament all the children who will never come home"

See: http://www.humanrights.gov.au/publications/bringing-them-home-report-1997

Northern Territory Government Australia Inquiry into the Protection of Aboriginal Children from Sexual Abuse: Little Children Are Sacred Report

"The Board of Inquiry into the Protection of Aboriginal Children from Sexual Abuse was established on 8 August 2006 and was Co-Chaired by Ms Patricia Anderson and Rex Wild QC. The purpose of the Inquiry was to find better ways to protect Aboriginal children from sexual abuse"

See: http://www.inquirysaac.nt.gov.au

Closing the Gap Report 2016

"This 2016 Closing the Gap report shows, as in previous years, that there have been mixed levels of success in meeting the targets set by the Council of Australian Governments (COAG) in 2008. It underscores the need for all Australian governments to intensify their efforts and partner with Aboriginal and Torres Strait Islander people and all Australians to effect change"

See: http://closingthegap.dpmc.gov.au/index.html

Key Resources for School Psychologists

Social and Emotional Wellbeing and Mental Health Services in Aboriginal Australia

The Australian Government Department of Health and Ageing has set up a website solely dedicated to providing health and mental health professionals with resources and information on evidence-based practice principles for improving the social and emotional well-being of Indigenous Australians

See: http://www.sewbmh.org.au/page/3666/promising-practice-principles

Indigenous Psychological Services

"Indigenous Psychological Services (IPS) is a private company founded in 1998 by Dr Tracy Westerman of the Nyamal people of the North West of Western Australia. Dr Westerman is a recognised leader in the Aboriginal mental health field having won numerous awards and recognition for her contribution to the Aboriginal mental health field. She developed IPS to address the paucity of specialist mental health services for Aboriginal people, despite the obvious need for these. IPS maintains a social justice focus through its annual provision of free essential services into identified Aboriginal communities in need despite an absence of funding for any of its services"

See: www.indigenouspsychservices.com.au

APS Reconciliation Action Plan

"As the leading organisation for psychologists in Australia, the APS represents more than 21,000 members. The need for Reconciliation is pressing and the APS has committed to taking action. In September 2012 the inaugural APS Reconciliation Action Plan (RAP) was launched at the 47th APS Conference in Perth. The RAP is

the result of a collaborative and consultative process officially commencing with the signing of a statement of commitment with Reconciliation Australia. A Working Group and Executive Group of diverse stakeholders led the development of the RAP"

See: https://www.psychology.org.au/reconciliation/APS/

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Child and Adolescent Development

Rosalyn H. Shute and John D. Hogan

Introduction

For school psychologists, understanding how children and adolescents develop and learn forms a backdrop to their everyday work. Whether a child is developing 'normally' or has a developmental delay or learning difficulty presents a regular challenge. Norm-referenced tests are one of Sattler's (2008) 'four pillars of assessment' for gathering information about a child's progress, the others being interviews with various parties, formal observation, and informal sources. All have strengths and weaknesses but provide the school psychologist with a broad range of information for collation and interpretation when working with an individual child. School psychologists also have opportunities to work more broadly in the school setting, influencing school policies and practices in ways that are in the best interests of children.

Underpinning such professional practice must be knowledge of child and adolescent development, and, in accord with evidence-based practice, it is important to keep up with 'developments in child development'. However, with thousands of books and journals devoted to the topic, the many new 'facts' can be difficult to absorb, nor do they make sense unless brought together within theoretical frameworks. Empirical studies of interest to school psychologists often appear atheoretical because of their focus on effectiveness rather than processes of change, but Burns (2011) advises the avoidance of such studies as 'theoretical and conceptual frameworks provide a structure to guide practice and solve problems' (p. 133).

For all the work that has been done, no grand theory has emerged that explains the range of developmental phenomena—at least none that has satisfied the bulk of interested parties. Instead, a variety of theories have been offered, some large and some small, but each contributing valuable information about the nature of development. In this chapter, we make no attempt at compiling a list of 'facts' about development, but rather hope to provoke reflection by exploring the idea that child and adolescent development is a moveable feast, across both time and place. This will hopefully provide a helpful perspective for considering the many texts and papers that do focus on 'facts'.

Today's understandings of child and adolescent development do not exist in a vacuum but have evolved over time. We therefore begin with a historical overview of the major theoretical approaches, highlighting educational aspects, to provide context for some issues of current concern. We move from the more traditional approaches towards more recent critical perspectives.

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In drawing out implications for school psychology practice, we begin by asking whether, in the light of recent theorising and critiques, there is still value in the classical theories. Then, with a more critical eye, we revisit the notion of developmental norms and the related idea of milestones. Our focus then shifts to several recent trends, including recognition of the importance of contexts for development and for school psychology practice, and the current tendency to see children's development and learning through a biological lens. We end by considering calls for greater inclusivity of children's voices in research and practice.

Early Philosophical Influences

The foundation for many modern views of development lies in the work of two philosophers of the Enlightenment, John Locke (1632–1704) and Jean-Jacques Rousseau (1712–1778). Locke, one of the early leaders of the British empiricist movement, believed that the mind is a blank slate (*tabula rasa*) at birth and that knowledge is acquired chiefly through the senses. His writing specifically challenged the work of philosophers such as René Descartes who postulated the existence of innate ideas. The unmarried and childless Locke, nevertheless, had definite ideas about raising children. Sharing these with a friend in a series of letters resulted in the publication of *Some Thoughts Concerning Education* in 1693, which summarised his views on the importance of experience and observation to learning and development. One thing he opposed was mere memorisation, then a common educational approach. Much of modern day learning theory can be traced directly to Locke and other British empiricists.

Swiss-born Jean-Jacques Rousseau had a completely different emphasis, often characterised as the 'classic' developmental position. Rousseau acknowledged the value of learning, especially in the early years, but believed that nature had an unfolding blueprint for development that was too frequently ignored owing to the demands of parents and society. Optimum development could be best achieved by allowing the natural tendencies of children to express themselves. As part of the unfolding process, Rousseau proposed a four-part stage theory of development, from infancy to adolescence, each stage having its own strengths and limitations. *Emile* (1914), in which he outlined his plan for the education of a (fictional) child, was well received. His writings, particularly his stage theory, provided a foundation for several later developmental theorists including Jean Piaget and Maria Montessori.

The Notion of Normative Development

While reference to normative data is a well-established aspect of school psychology, such information has only been available since the twentieth century. A few 'baby biographies' had previously appeared, often written by parents, highlighting milestones in their own children's development; the most famous was by Charles Darwin (Darwin, 1877), though earlier ones by mothers were ignored as women were regarded as not having the necessary objectivity to study their own children. In part, the absence of normative information can be attributed to the role that children and adolescents played in society. After a dependent infancy, most young people were simply labelled 'youths' or some variant and remained so until marriage. Few sharp distinctions were made concerning age, cognitive ability, or other developmental characteristics. In a largely rural society, such distinctions were not greatly important (Aries, 1962).

With the industrial revolution, as families increasingly moved into cities, the role of children changed, particularly in the lower classes, and young children sometimes worked long days in factories (Hindman, 2002). Criminal courts often viewed children in the same way as adults, with little appreciation of the psychological differences that development produced. These attitudes began to change with the appearance of the 'child study' movement, which specifically addressed the need for children to be

treated differently in all aspects of society. High on the list was the requirement that every child attends school, at least at a basic level (Siegel & White, 1982).

G. Stanley Hall (1844–1924) became an early leader of this movement, and one of the first to link the emerging experimental psychology to education and the developing child. As a highly visible spokesman for the movement, he promised that the new experimental psychology would help parents and educators raise a child according to the best scientific principles (Hogan, 2003). In fact, the new psychology displayed little interest in the practical issues that child development and education posed. Nonetheless, Hall was persuasive. Through his efforts, including the founding of a journal of developmental psychology, education and development became firmly linked. In this sense, Hall became an important forerunner of modern school psychology.

Hall's first publication on children was a survey titled *The Contents of Children's Minds* (1883) and was proof, to some, that children could be studied scientifically. In 1904, he published a two-volume work on *Adolescence* that resurrected an archaic term and defined a period of development (Hall, 1904). Hall's evolutionary approach to development, recapitulation theory, was ignored by many contemporaries. His later surveys, mostly dissertations from Clark University, were similarly ignored. However, one important contribution was more lasting—his students, including Henry H. Goddard (1866–1957), Lewis M. Terman (1877–1956), and Arnold Gesell (1880–1961).

Goddard worked at an institution for those with developmental disabilities in New Jersey. He became intrigued by a new intelligence scale developed by Alfred Binet (1857–1911) and Théophile Simon (1863–1961) in France. Goddard literally brought a version to the United States of America (USA), translated it, and tried it out in his own facility and the surrounding area. Impressed by its ability to sort out people based on their mental level, he promoted it extensively. The Binet-Simon scales were an important normative measure, describing the level of certain abilities that were expected of children at various ages.

Terman revised the Binet-Simon scales, refining and re-norming them for American audiences, and standardising the administration and scoring. In 1916, he published *The Stanford Revision of the Binet-Simon Scales* (the 'Stanford-Binet'), which became the standard measure of intelligence in the USA for decades, and the benchmark against which many new tests were measured. The elusive concept of intelligence now had a number attached to it—the ubiquitous IQ—and the psychology literature exploded with a rash of studies on intelligence.

Gesell worked for Yale University where he established a child study laboratory. Over several decades, he and his colleagues systematically observed children, particularly their motor behaviours (Thelen & Adolph, 1992). They frequently used film, an innovative technique for the time. They compiled an impressive set of developmental norms for children, many of which are still in use. Gesell's emerging theory leaned heavily towards a maturational view of development; he and his colleagues argued strongly for the importance of 'readiness' (Ames, 1996). For several years while at Yale, Gesell also worked as a school psychologist for the state of Connecticut and may have been the first person to hold that title.

Psychodynamic Theories

At the same time as Hall and others were engaged in developing a more scientific approach to children's development, Sigmund Freud (1856–1939) was creating an all-encompassing theory whose merits are still much debated. His great creation, psychoanalysis, is not simply a psychotherapeutic method, but an explicit theory of child and adolescent development very different from what came before. For Freud, children were no longer passive players in their development, but active participants. Moreover, he considered them sexual beings from a very early age. Their development was conceived of as a series of psychosexual stages, controlled almost entirely by a natural unfolding of biological processes, including a dramatic Oedipal dilemma. The stages build

on one another so that the success with which one traversed an earlier stage could have a significant impact on a later stage; most important aspects of development he saw as being settled by adolescence. Underlying much of this development was Freud's belief in the importance of the unconscious (Freud, 2005).

Erik Erikson (1902–1994) was also an ego psychologist who probably made the greatest impact with his first book *Childhood and Society* (1950). He accepted most of Freud's basic concepts but added a social element. For instance, he paired each psychosexual stage with a corresponding problem of social adjustment that needed to be worked through. Erikson extended Freud's theory to include the entire life span. One of his stages that has produced a great deal of research and writing has been the adolescent search for identity, including 'the identity crisis'.

While psychodynamic approaches to development are less popular today, they brought a more dynamic quality to thoughts about development.

Behaviourism

By the early twentieth century, the discipline of psychology was becoming diffuse, with several antagonistic camps (O'Donnell, 1985). John B. Watson (1878–1958) offered a clear and comprehensive proposal for taking a behaviourist direction. He suggested an explicit proposal for the future of psychology that would not only unify it but also make it more solidly scientific (Watson, 1913). Behaviourism made learning the central feature of psychology and behaviour its proper area of study. Internal states that could not be scientifically studied and verified, such as consciousness, were not to be considered a part of the discipline. In addition, he recognised no dividing line between animals and humans in the principles underlying learning.

In 1920, Watson, with his assistant Rosalie Rayner, conducted the famous 'little Albert' study in which he attempted to demonstrate that even the acquisition of emotions could be explained through principles of learning (Watson & Rayner, 1920). This study is sometimes considered one of the first examples of the 'experimental child' movement. Only a few years later, Watson's associate Mary Cover Jones (1924) demonstrated how principles of learning could be used to reduce fears in a child, an early example of desensitisation; she became known as the 'mother of behaviour therapy'. Watson's approach soon became a central tenet for much of academic psychology. The study of learning was paramount and several variants, such as the theories of Tolman, Guthrie, and Hull, dominated the field. The behavioural movement reached its zenith with the work of B. F. Skinner (1904–1990).

Skinner argued that he did not have a theory although most would say he did. He began with the basic law of reinforcement—anything that strengthened the probability of a behaviour occurring is considered a reinforcement. From this simple beginning, he was able to develop a system of ever widening application. His research, often with pigeons, demonstrated how different schedules of reinforcement result in different response levels. Similarly, he showed how reinforcing for small behaviours could ultimately shape more complex behaviours (Rutherford, 2009). For Skinner, the same principles applied to animals as to children or adults. His approaches to behaviour have had an enormous impact and continue to be used extensively in general child management as well as in special education and beyond.

Learning theory later departed from its strict behavioural beginnings. It became less mechanistic and more functional and also acquired a cognitive element. In particular, Bandura and Walters (1963) social learning theory became very influential, incorporating learning by observation and vicarious reinforcement.

Ethology

One challenge to behaviourism came from evolutionary biologists working with animals. They were able to offer vivid demonstrations of the power of evolution in preparing animals for adaptation. One such phenomenon, *imprinting*, was studied by Austrian ethologist Konrad Lorenz

(1903–1989). Lorenz showed that selective stimuli in the environment could release relatively complex behaviours in certain birds and mammals (Lorenz, 1961). Moreover, he often identified a critical period during which these stimuli were most effective, as in the case of goslings imprinted on their mother (or Lorenz himself, in her absence). The question for some researchers became: did humans exhibit similar evolutionary-based behaviours?

John Bowlby (1907–1990) was a British psychiatrist who had begun to question the impact of parental separation on attachment disorders in children. He observed that children who had been separated from their parents for various reasons later exhibited difficulties in establishing intimate relations with others (Bowlby, 1969). His own development, typical of well-to-do families of the time, was characterised by minimal contact with parents, being raised by a nanny, and being shipped off to boarding school at a young age. The work of the ethologists fitted his work, and he would eventually incorporate many of their ideas. Later, he would join forces with Mary Ainsworth (1913–1999), an American-Canadian psychologist who became most noted for developing *the Strange Situation Procedure*, a method for assessing a child's style of attachment to a caregiver (Ainsworth & Bell, 1970).

Cognitive Challenges to Behaviourism: Jean Piaget and Noam Chomsky

By the early 1950s, dissatisfaction with behaviourism was growing. While proven useful in establishing a more scientific approach to psychology, it often provided limited, even trivial, answers. Several other elements led psychology to pursue a more cognitive approach. One was a strong criticism that a young and unknown professor, Noam Chomsky, made of Skinner's explanation for language development. Skinner had argued that language development could be explained according to principles of reinforcement (Skinner, 1957). Chomsky made a convincing case that children simply could not learn the complex aspects of language as Skinner proposed. Rather, he argued that humans have an innate capacity to process language. Chomsky developed these ideas further in his book *Syntactic Structures* (1957).

The strongest challenge to the behaviouristic view of development, however, came from a Swiss psychologist who had been writing and conducting research on children for several decades. The work of Jean Piaget (1896–1980) was little known in the USA, mostly because his theory included cognitive structures, a concept that was anathema to behaviourists. Piaget's academic background and methodology were also suspect among many more rigidly trained psychologists. Nonetheless, his stage theory of children's development had an unparalleled impact on child psychology. Not only was it taken up by academics and subjected to an enormous amount of research, but also it was embraced by educators who immediately saw the practical classroom implications (Crain, 2010). Despite many criticisms about particulars of the theory, e.g., the age when certain behaviours appear, Piaget's theoretical structure remains a highly useful guide to children's development from infancy to mid-adolescence.

Vygotsky's Dialectical Theory

Piaget's view of the child as a rather solitary 'little scientist' is often contrasted with that of his contemporary, the shorter-lived Soviet psychologist Lev Vygotsky (1896–1934), whose view of the developing child is often portrayed as that of a 'little apprentice'. Vygotsky's great contribution was to consider how a child's cognitive development occurs socially, under the influence of language and culture—and that culture is in turn created by cognition. This represented a move towards viewing development in an interactionist fashion. Vygotsky's theory has been educationally influential, especially in considering the 'zone of proximal development', the leading edge of a child's developing intellect, where he or she progresses with the assistance of more capable people. However, Vygotsky's theory is

often misrepresented in educational writings, such as by giving a greater role to peers in cognitive development than he ever intended (Gredler, 2012).

Systems Theories

The General Systems Theory of biologist Ludwig von Bertalanffy (1901–1972) provided the background for systems theories of children's development. Although cross-cultural psychologists and anthropologists had long known the importance of contexts for development, it was the Soviet-born American Urie Bronfenbrenner (1917–2005) who became most influential in this area. He observed that, as laboratory studies burgeoned, understanding children's development had become divorced from context. Influenced by Vygotsky's writings, his theory was that the child develops within various interacting microsystems (such as the family and school) that are themselves embedded in a macrosystem of societal attitudes, laws, and so on (Bronfenbrenner, 1979). He later added a biological dimension (Bronfenbrenner & Morris, 1998, chap. 17).

The dynamic systems theory of Esther Thelen (1941–2004) was, from the outset, more strongly biologically based (Thelen & Smith, 1994). While behaviourists saw the environment as paramount for promoting development, and Piaget saw development as organismic, or child-driven, dynamic systems theorists brought these together. They demonstrated that motor behaviour and cognition do not 'unfold' in a maturational sense according to some predetermined plan, as some earlier theorists believed, but depend upon an ongoing interactive process between the developing child and her or his environment.

Biological Theories

Recent research in genetics and neuroscience has given a great boost to biologically based theories of development as pursued by the ethologists. Evolutionary developmental psychology has become a field of study in itself (Bjorklund & Pellegrini, 2002). Biology has even been described as the latest paradigm in psychological theory, taking over from the cognitive revolution. Rather than upholding the simplistic idea that 'genes cause development', and consistent with dynamic systems theory, biological research is showing how the environment changes the actions of genes (epigenetics), and that such changes can be passed on to the next generation. It is, therefore, becoming much better understood that genetics and environmental influences are inextricably intertwined: neither Locke's *tabula rasa* nor Rousseau's natural unfolding of development was entirely correct, but each was looking at a different aspect, the same being true for learning theorists on the one hand and organicists on the other.

Critical Perspectives

With psychology, including developmental psychology, being thoroughly enmeshed in the scientific, modernist tradition, only a minority of voices has brought a critical perspective to bear on the discipline, which has been quite resistant to this influence. Critical theorists such as the French postmodernists Leotard, Derrida, and Foucault come from a different philosophical basis from that which underlies scientific psychology (Teo, 1997). Knowledge is seen as constructed rather than discoverable, with this construction being a social and political activity influenced by power structures. For example, feminist critiques have pointed out how strongly developmental psychology has been influenced by masculine constructions of the world (Burman, 2008). Researchers from non-western cultures have critiqued some theories as irrelevant for them; for example, most of the world's children have multiple caregivers and have been said to grow up 'without attachment' (Ritchie & Ritchie, 1979), while African children's development is not about the progress of the individual's faculties (as in Piaget's or Freud's theories) but is 'a cumulative focus of social integration into the cultural community' (Nsamenang, 2006, p. 9).

Historical studies also demonstrate how the direction of the discipline has been determined by factors outside of science; for example, Charlotte Bühler's outstanding work on emotional development was neglected for years because it was in the German language (Magai & McFadden, 1995). In recent years, too, the notion of the 'voice of the child' has become more prominent, with a view to seeing children as active, rather than passive, participants in research and in decisions that affect their lives (Shier, 2001).

Are the 'Classical' Theories Still Useful?

This very brief historical overview shows that how we understand children's development is constantly evolving. The older theories have not disappeared, however, and the existence of many theories side by side can be quite confusing. The broad-brush approaches we have outlined (e.g., behaviourism, organicism) are sometimes regarded as 'metatheories', or higher-level theories, with certain core characteristics (Ketelaar & Ellis, 2000). Within these, more narrowly focused theories can be fitted, and it is these 'mini-theories' on which most researchers concentrate and that produce testable hypotheses. This is the level most familiar to psychologists, most of whom have been educated within the Popperian tradition (that refutation of hypotheses is the basis for scientific progress). Less familiar is the philosophy of Lakatos, which takes the view that higher-level theories (metatheories) do not stand or fall on the basis of specific research results, but the overall pattern must be considered (the 'research program'). Of the metatheories we have covered here, most still inspire research today.

Some work has been done to try and unite apparently disparate theories, and even metatheories. For example, a new developmental metatheory, *relationalism*, holds that the person, his/her culture, and biology are inseparable, but that this relationship-based whole may be studied from different viewpoints (e.g., Overton & Ennis, 2006). As we observed about Locke and Rousseau, the blind men touching the elephant are not each 'wrong' but are perceiving the large and complex creature from a different perspective. Personality theorist George Kelly said that each theory has a 'range of convenience'—where it is most useful—but that all are ultimately expendable. For the school psychologist, perhaps such a pragmatic approach is best: what theory seems most useful for approaching the question at hand?

Changes in the theories (or metatheories) espoused by school psychologists have been observed in recent years. For example, cognitive, developmental, and social learning theory frameworks have tended to give way to the more ecological approaches inspired by Bronfenbrenner (Kennedy, 2006). Annan and Priestley (2011) have similarly noted this trend in the school psychology literature, as well a greater concern with respect for diversity, and an embracing of positive psychology and evidence-based practice. It is timely to ask, therefore, whether there is still anything of value to be taken from the more established theories. They can, we believe, continue to provide useful educational, remedial, or therapeutic frameworks, and we give several examples here.

The first is Piagetian-inspired 'developmentally appropriate practice' (DAP) for children's education up to the age of eight (Copple & Bredekamp, 2009). It is based on the idea that learning should be tailored towards children's developmental milestones and also that children drive their own development by interacting with the world. The teacher therefore encourages active learning through play, at a level appropriate for individuals or small groups of students. It is being promoted in the USA as an antidote to the importing into kindergartens of formal teaching and assessment more suitable for older children (Elkind, 2011). A Vygotskian influence has become apparent, too, making the method more socially and culturally informed, though this addition has been criticised as being only an afterthought to what is basically a developmentally grounded method (Department of Education and Training, Victoria, 2005). In Australia, a more strongly sociocultural approach is favoured for early learning (ibid.).

The second example is the strength with which the idea of 'scaffolding' of learning has been

taken up in education, based on a minor discussion in Vygotsky's writings about the 'zone of proximal development' (ZPD), where the child can perform intellectually at a higher level than alone, with appropriate guidance from a more capable person. Essentially, education is about working in the child's ZPD; Jarvis (2011) has discussed how the effectively differentiated classroom, where learning tasks are 'consistently matched to a student's readiness, interests, and learning profile characteristics', offers the best support for both academic learning and psychological competence (p. 242). Less widely understood, as a result of inaccurate translations of Vygotsky's writings, is the fact that Vygotsky put the ZPD forward as a *method of assessment* of a child's abilities: 'an adult engaging the child in problems that are just above his or her independent problem solving indicates the child's intellectual functions that are maturing, but not yet matured' (Gredler, 2012, p. 118). This tells us something further about a child's cognitive abilities than does an IQ test. Furthermore, while Vygotsky did not see the ZPD as relevant until age seven, when a child is developing the conscious ability to control memory and attention through the use of symbols, the concept has been extended downwards (ibid.). In fact, research on mother-young child dyadic interactions (e.g., Wood, 1988/1998)—not a subject of Vygotsky's writings—was particularly influential in drawing the ZPD to the attention of educators. Research and practice based on the ZPD exemplifies how a misrepresented theory, even if it results in some unjustified criticism and missed opportunities, may, nevertheless, prove fruitful.

The third example we give is that of functional analysis, developed using behaviourist principles. It is based on observations of (and/or interviews about) challenging behaviours, to determine patterns of occurrence. In the USA, it is required by federal law as a part of school disciplinary proceedings (Yell, 1998). The analysis aims to determine the antecedent conditions (A), the challenging behaviour (B), and the consequences of the behaviour (C). To this classical ABC configuration is added a consideration of the *motivation* for the behaviour: is it to escape something undesirable, to gain attention, to gain stimulation, or to gain a tangible reward? Hypotheses about function can be set up and tested by changing A and/or C to judge the effect on B. The method is especially useful when a child has a disability, such as autism, when methods of assessment that rely on communication skills are difficult to implement. It directly suggests interventions. The method has also been adapted for the classroom use by teachers with minimal training from a psychologist (Packenham, Shute, & Reid, 2004).

While these examples all show that the classical theories continue to be useful and to inspire further research, it is also apparent that the current trend is towards theories becoming more complex, holistic, and interactionist, blending environmental influences with individual biology, and social with individual factors. In addition, postmodern perspectives suggest the value of taking a more critical eye to developmental theories and to school psychology practice than is traditionally the case. Considering school psychology in a rapidly changing world, Annan and Priestley (2011, p. 327) have suggested that '[t]he diverse nature of the current environment has demanded that attention be paid to theory that supports multiple interpretations of human activity, interaction and development'.

Norms and Milestones Revisited

Workers such as Binet, Simon, and Gesell laid the groundwork for what is now a 'given' in Western education (which includes British-colonised Australia): that children's abilities, achievements, and progress should be assessed against norms in order to determine whether they are falling behind expectations (or, occasionally, are well ahead of them), in order to put in place appropriate measures to enable children to reach their full potential. In accord with Western philosophy, much more emphasis is placed on cognitive than on physical or social-emotional development.

The Piagetian approach, too, as illustrated by DAP, places emphasis on the stages or milestones that children reach as they grow older. However,

as we have seen, this notion that children should reach milestones at certain ages was irrelevant in the West prior to the industrial revolution; this is still the case in many societies. For example, Aboriginal people in a Central Australian Aboriginal community praise their children for achieving milestones, such as learning to sit, but do not expect them to occur at any particular age (Byers, Kulitja, Lowell, & Kruske, 2012). For Western parents, tables of early milestones are readily available, and parents may become very concerned if their child seems to be behind their peers and seek advice as to whether there is a developmental problem. At that stage, screening may occur, for example, using the PEDS (Parent Evaluation of Developmental Status) for children up to 8 years old (see Oberklaid, 2011, for information about this and similar developmental screeners). The more severe developmental difficulties are likely to be picked up as a result of parental concern in the early years, but many mild to moderate developmental difficulties only come to light once a child begins kindergarten or school (Oberklaid, 2011). Therefore, by the time children come to the attention of a school psychologist, the early milestones are the subject of unreliable parental memory, while later milestones are increasingly culturally determined. Screening tests of developmental status may still be useful, or more in-depth assessment of the child's current development may be warranted, through the Vineland Adaptive Behaviour Scales (Sparrow, Cicchetti, & Balla, 2005). It goes without saying that appropriate use of norms and confidence intervals is called for in all assessments although this issue can be complex. For example, whether scores should be assessed against the general population or be demographically adjusted raises a host of questions, such as whether ethnically adjusted scores result in lowered expectations for some groups (Strauss, Sherman, & Spreen, 2006).

Where a child's development is outside the expected range, dynamic systems theory implies that careful attention should be paid to considering the path by which that child has reached where they currently are. For example, achievement tests may be better judged against a child's educational history (grade-related norms) rather than their age. Disability also leads a child along particular developmental paths; for example, as Vygotsky realised, cognition develops in accord with our bodily interactions with the world ('embodied cognition'); blind children, therefore, develop along different pathways, such as using their body differently as a reference point for understanding the notion of time (yesterday, tomorrow, etc.) (Iossifova & Marmolejo-Ramos, 2013).

We also need to bear in mind that norms and milestones are subject to change. Of course, IQ tests have to be re-normed every few years, as IQs increase, though no one is really sure about the reason (anecdotally, outdated tests that inflate IQs have been known to be used as a way of reducing referrals to overburdened services—this is unethical). Even as strongly biological a milestone as age of girls' puberty has dropped dramatically in recent decades. The recognised 'stages of life' are also subject to cultural differences and cultural change. For example, Erikson saw adolescence, with its primary concern about identity, as merging into young adulthood, with a greater focus on intimate relationships, but more recently, it has been proposed that a new stage of development, 'emerging adulthood' now falls between adolescence and adulthood in industrialised countries (Arnett, 2007, 2013). The nature of this stage has attracted debate, with one view being that it is a time characterised by narcissism, risk-taking, depression, and anxiety, while another view is that this reinforces unhelpful and unsupportable stereotyping of young people.

While psychologists take for granted the use of norms as a way of identifying whether a child has special needs, postmodern views question the very idea of 'the normal', in seeking to promote acceptance of diversity. From a psychological practice perspective, the stigmatising words 'normal' and 'abnormal' should of course be avoided in all communications about a child.

The popular metaphor of 'milestones', too, is interesting, as it suggests that a child is on a journey to some final destination. One critique emerging from the 'new sociology of childhood' is that developmental psychology in general has too much of a future-focus and is more concerned

with what the child is *becoming* rather than with its *being* (e.g., Heary & Guerin, 2006). As one 9-year-old boy said, 'Childhood is not preparation for life. It is life.' This is worth thinking about when children are put under enormous pressure to achieve academically at the expense of current well-being.

Practitioners might also like to reflect on whether testing against norms can be part of a problem-based mindset aimed at identifying failure. The positive psychology movement reminds us to focus on strengths (Seligman, 2002). Parents and teachers often comment that well-credentialed behavioural scales such as the Child Behaviour Checklist (Achenbach, 2009) seem very negative, while the much shorter Strengths and Difficulties Questionnaire has a proportion of prosocial items and is preferred by mothers in the community (Goodman & Scott, 1999).

The Importance of Contexts

Bronfenbrenner's theory, Vygotsky's theory, dynamic systems theory, and critical perspectives all remind us that assessment of children should take account of contexts. This ecological perspective is one that is increasingly being embraced by school psychology, recognising that children's development occurs within a complex of reciprocal relationships and contexts. Partnerships between schools, families, and other agencies have become a more central concern (Annan & Priestley, 2011; Shute, 2016). As Annan and Priestley (2011, p. 331) have observed, '[i]n currently espoused school psychology, the applicability of procedures and measures is carefully considered in relation to the particular developmental, cultural and social contexts in which their use is contemplated'. This can present conundrums for the school psychologist, again throwing up the issue of norms. A prime example is that Indigenous children in remote Australian communities are now subject to national assessment standards in literacy and numeracy through NAPLAN (National Assessment Program—Literacy and Numeracy) testing. This often shows children and schools to be 'failing', without taking account of the fact that these tests come from a Western philosophical background that privileges the individual over community and cognition over emotion; local language abilities are also devalued in favour of English (Shute, 2015). These children have culturally informed views of success and their futures that do not fit the Western mould (Guenther, 2015). How a school psychologist approaches such issues involves inescapably political decisions.

Another example where context is relevant is the trend for mental health promotion to be incorporated into schools (e.g., Cefai, 2011). The question of program fidelity—implementing a program as it was designed to be done—needs to be balanced against adapting it to the reality of the local context. For example, KidsMatter, Australia's national mental health promotion program, incorporates both fidelity and adaptation within a unique quality assurance system that was 'designed to ensure that the introduction … in complex organizations such as schools takes into account a range of factors including the uptake, adoption, implementation and on-going review of the program' (Shute & Slee, 2015, p. 262). With their understanding of both research and school contexts, school psychologists are ideally placed to contribute to such processes.

The Biological Paradigm Revisited

With biology often seen as the current zeitgeist in psychology, we consider two aspects relevant for school psychology: neurological development and the medicalisation of children's behavioural and emotional problems.

Neurological development and neuromyths. Prenatal development proceeds from the primitive brainstem and midbrain, through the limbic system (which is concerned with emotions) and up to the cortex, which postnatally becomes increasingly able to modulate the functions of the lower parts of the brain. Development is therefore hierarchical, with the anterior regions developing last (Anderson, Spencer-Smith, & Wood, 2011).

Birth is not a clear point of demarcation between the effects of heredity and the environment. For example, infants begin to learn prenatally about the vowel sounds of the language to which they are exposed (Moon, Lagerkrantz, & Kuhl, 2013). After birth, there is particularly rapid development of synapses and dendrites between 8 months and 2 years, followed by pruning of cells and connections in the light of environmental influences. Myelination of neurons occurs into adulthood, to insulate them and improve their message-carrying capacity. There is an evolutionary-based view that, to ensure their survival, infants are strongly predisposed to learn attachment and for its extinguishment to be resisted; as Bowlby observed, it is strong even in the face of abuse from the caregiver (Moriceau & Sullivan, 2005). Perry (1997) proposed that, nevertheless, early neglect or abuse affects the hierarchical development of the brain, such that the modulation of the lower parts by the cortex is disrupted, causing a greater tendency towards psychopathology, such as anxiety or violence. Indeed, animal research indicates that neurological changes underlying stress responses occur as a reaction to the early environment, such that an individual's stress response system can be 'tuned up' or 'tuned down' to match the environment (Weaver et al., 2004). Furthermore, children's genetic inheritance may influence their sensitivity to the early environment: those with certain gene variants thrive in a supportive environment but do badly in an unsupportive one ('orchids'); those with different gene variants ('dandelions') do not reach these heights or depths but develop reasonably well whatever the environment (Boyce & Ellis, 2005).

While a great deal has been learned in recent years about neurological development, it is still unclear whether the brain has evolved separate hard-wired cognitive 'modules' for understanding various aspects of the world (as evolutionary theory suggests) or is not modular (in accord with a Piagetian view). A third 'neuroconstructivist' approach is that modules are end products, not determinants, of development, in accord with dynamic systems theory (Karmiloff-Smith, 2012). This recent understanding poses two possibilities. One is that the early months and years create a strong blueprint for future development, suggesting that this is a time of vulnerability, in accord with theories such as Freud's and Ainsworth's. The other possibility is that, with the demise of genetic determinism, ongoing malleability, or plasticity, of the human brain, will permit early damage (by trauma, accident, or illness) to be made good by the provision of an appropriate environment; this is in tune with theories such as Vygotsky's and systems theories that recognise the individual as constantly changing in interaction with the environment. Anderson et al. (2011) suggest that, rather than seeing 'vulnerability' and 'plasticity' as contradictory extremes, they are better viewed as the ends of a continuum—a spectrum of possible recovery from early brain insult. This is an enormously complex matter, with recovery dependent on many factors, such as type, timing, and location of injury and individual factors such as gender, genetics, and cognitive capacity. Input from a child neuropsychologist is needed to properly address these matters (see also Jantz & Plotts, 2014).

While advances in understanding neurological development are very useful, a drawback is that popularisation of neurological explanations for behaviour can lead to myth creation. For example, Dekker, Lee, Howard-Jones, and Jolles (2012) found that UK and Netherlands teachers believe, on average, 49 % of 'neuromyths' presented to them, on matters such as preferred learning styles and right brain/left brain—and those with a specific interest in the neuroscience of learning were the most likely to subscribe to the myths, especially if they were associated with commercialised educational programs. This highlights that school psychologists can have a crucial role beyond the inevitable workload of assessing individual children: a well-informed school psychologist acting as a knowledge broker about the latest research in child and adolescent development may be an invaluable resource, helping to prevent schools from getting sucked into the latest educational fad.

We also hear much today about the adolescent brain and how its immaturity underlies adolescent impulsivity and so contributes to risk-taking.

However, examination of the evidence by Romer (2010) indicates that such behaviours are much more a result of a lack of experience with new adult-type situations rather than due to a lack of maturation of brain structures. This is an example where care needs to be taken not to attribute worrying adolescent behaviours too readily to an 'immature brain', which may lead to a neglect of other important causal factors with the potential to be addressed.

Medicalisation of children's difficulties. One manifestation of the biological paradigm is the classification of children's behavioural and emotional difficulties as psychiatric diagnoses, which may be the means of gaining services for children, or serve as 'labels of forgiveness' for both children and parents, even if the evidence base is weak that the 'condition' is biological. For example, ADHD lacks any biological marker, the effects of ADHD medication are not specific to those with the diagnosis, and medication has no long-term effect; nevertheless, rates of diagnosis and treatment by medication have continued to increase (Timimi et al., 2004). However, the fifth edition of the *Diagnostic and Statistical Manual* (American Psychiatric Association, 2013) has proved very controversial, so a backlash against psychiatric diagnosis is possible. The British Psychological Society (BPS) has already repudiated it as a basis for psychological practice, expressing concern about the validity and utility of numerous diagnoses, including ADHD, schizophrenia, attenuated psychosis syndrome, depressive disorders, anxiety disorders, and many others, maintaining that seeing these problems as 'illnesses' overlooks their social contexts and causation and medicalises normal responses to life events such as bereavement. A few diagnoses (which happen to be of particular interest to school psychologists) the BPS considers to have greater validity on theoretical and empirical grounds; these include intellectual developmental disorders, communication disorders, autism spectrum disorder, learning disorders, and motor disorders. Overall, though, the BPS rejects diagnosis in favour of an iterative process of problem formulation, intervention, monitoring, and adjustment (British Psychological Society, 2011). This approach frees up practitioners to draw more fully upon the richness of theoretical developmental frameworks available for conceptualising children's issues.

The Voice of the Child

In psychology, we come from a research tradition that differentiates between the observer and the observed, in the interests of objectivity. Postmodernism takes a different view, regarding such objectivity as a myth. '[P]sychology, so far from being objective and value-free, has traditionally silenced and marginalised the perspective and voice of those without power and has promoted the worldview and interests of white, Western, middle-class, heterosexual adult males' (Greene, 2006, p. 8). Greene's critical perspective points out psychology's neglect of children's own input to matters of research and practice that concern them. As she points out, it is ironic that it is research in developmental psychology demonstrating that children, especially infants, are more capable than ever previously realised that later led to such critiques of developmental psychology. It is the 'new sociology of childhood' (Matthews, 2007), together with increasing international promotion of children's rights that has argued for greater recognition of children's voices.

Lansdown, Jimerson, and Shahrooz (2014) argue that that the school psychologist has many opportunities to put into practice the United Nations Convention on the Rights of the Child (1989). For example, relationships with individual children should be premised on genuinely listening to children and valuing what they have to say, and informing them of how their views will be taken into account in making decisions. The involvement of children in developing their own educational plans results in positive outcomes such as improved academic and communication skills. Opportunities for advocacy can also be created within broader systems, with school psychologists well placed to promote, monitor, and evaluate a culture of respect for children within schools. There are even examples of children and adolescents being full participants in educational

research. For example, Spears, Slee, Campbell, and Cross (2011) have promoted collaborative research with young people to address cyberbullying; as 'digital natives', they have wisdom to offer. Children's rights in the context of well-being assessment have also been given some recent attention (see Jiang, Kosher, Ben-Arieh, & Huebner, 2014).

Conclusions

In this chapter, we have attempted to take a step back from everyday school psychology practice to consider how we understand children's and adolescents' development. Our current understandings are inevitably informed by the origins of the discipline in Western philosophy and the historical paths that theorising has taken. We are used to a standard scientific approach and a focus on empiricism and 'small theories'. While this has considerable advantages, school psychology may also benefit from taking a more critical approach to children's development and to school psychology practice. This seems well in tune with the increasing trend for school psychologists to be more embracing of diversity.

Test Yourself Quiz

1. Several major developmental theorists, e.g., Piaget, Montessori, derive their core outlook from the philosopher Jean-Jacques Rousseau. What practical lessons are to be learned from Rousseau-like theories?
2. The availability of norms for child and adolescent development is a modern phenomenon. Can you identify typical age-related norms in a child's intellectual development? Social development?
3. Some developmental theorists write of 'stages' in a child's development. What does it mean for a child to be at a particular stage of development?
4. Which theory of development is the most consistent with your own beliefs and behaviour as a professional? Which is the least consistent?
5. One particular class in a school has been identified as having high levels of disruptive behaviours during lessons. As a school psychologist, you have been asked for advice. Identify three ways in which a behaviourist outlook might help you approach this issue.

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The Culturally Competent School Psychologist

Samuel O. Ortiz and Karen Lee Seymour

Introduction

Whereas advances in modern technology have validated the truism that ours is a small world, there seems little doubt that it has become smaller still as development and access to transportation and communication networks have shrunk the 'distance' between human beings all around the globe. And while it may still take a day or so to get half-way around the world physically, news, information, mail, and other types of electronic data now travel with amazing rapidity to all corners of the earth such that it is no exaggeration to describe the connectedness among peoples as representing a true global community. What were once obstacles and limitations in mobility and knowledge have given way to unprecedented opportunities for exploration of and interaction with individuals from countries and cultures quite remote from their own. The natural consequence of bringing people together in one manner or another is an increase in the diversity of populations that heretofore had remained relatively homogenous. Yet with all the positive aspects that diversity brings with it, there are challenges that accompany it as well. Perhaps no other social institution has felt the impact of this change more so than the educational system.

The diversity of the school age population has increased dramatically over the past two decades in many countries including Australia, and it shows little signs of decreasing any time soon (Australian Bureau of Statistics, 2013a, 2013b, 2013c). This means that children from myriad different cultures and ethnicities often find themselves in educational settings that were originally set up to serve the needs of native-language-speaking students from the cultural mainstream. In these cases, the challenge to the schools becomes one of whether the foundations, on which general instruction and targeted intervention are provided, continue to be appropriate and effective for students whose experiences and language differ from those for whom they are appropriate (Halsell Miranda, 2014). It is at this very intersection of diversity that cultural competency becomes central to ensuring that educational goals and objectives remain both appropriate and equitable in promoting student success.

By virtue of their training and the scope and nature of their practice, school psychologists are in an ideal position to address the challenges that diversity poses in the educational setting. Indeed,

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they are expected to do so by their various professional agencies (Harrison, 2010). For example, the largest organisation of school psychologists, National Association of School Psychologists (NASP), specifies in its Model for Comprehensive and Integrated School Psychological Services (aka, Practice Model; NASP, 2010) that 'school psychologists provide culturally competent and effective practices in all areas of school psychology service delivery and in the contexts of diverse individual, family, school, and community characteristics' (p. 8). The NASP Practice Model reinforces the importance of addressing the differences created by diversity in the basic principle that specifies that 'school psychologists ensure that their knowledge, skills, and professional practices reflect understanding and respect for human diversity and promote effective services, advocacy, and social justice for all children, families, and schools' (NASP, 2010, p. 3). The role of school psychologists is also defined as extending beyond services to children and families to include attention to systems level issues. For example, the NASP Position Statement on Racism, Prejudice, and Discrimination (NASP, 2012) contains policy that states, 'school psychologists are charged with advocating for culturally competent, evidence-based practice and assisting schools with reforming policies and practices that contribute to inequitable outcomes' (p. 3). It is important to note that these standards are not only wholly specific to psychological practice in the educational setting but also applicable to psychologists in general. For example, the world's largest organisation of psychologists, American Psychological Association (APA), has long recognised that issues of language and culture are important in the provision of appropriate psychological services and that psychologists recognise the various socio-economic and political factors that may adversely affect the psychosocial, political, and economic development of diverse groups as specified in Guidelines for Providers of Psychological Services to Ethnic, Linguistic, and Culturally Diverse Populations (American Psychological Association, 1990, 2002, 2003). Consistent with these positions, the Australian Psychological Society (APS) Code of Ethics echoes the responsibilities of school psychologists in its General Principle A: Respect for the rights and dignity of people and peoples. Psychologists are therefore expected to regard people as intrinsically valuable, respect the dignity of all, and engage in practice, which promotes autonomy, justice, equity, and the protection of all people's human, legal, and moral rights (APS, 2007). In addition, provisionally registered psychologists through supervised practice and professional development are required by the Psychology Board of Australia to develop core capabilities to adequately practise with clients from cultures different from the psychologist's own. This requires demonstrating awareness, knowledge, and skill to work within a cross-cultural context (Psychology Board of Australia, 2010, p. 28). Standard B.7 of the APS Code of Ethics (2007) specifically addresses the use of interpreters in psychological practice and is discussed later.

The purpose of this chapter is to provide a comprehensive discussion of the importance, need, and value of cultural competency in the provision of school psychological services to diverse populations in Australia. In addition, we will propose a systematic framework designed to help, develop, or improve professional cultural competence with a particular focus on service delivery within the educational setting. The chapter will begin with an overview of issues related to the increase in the diversity of the school-age populations, with special attention to Aboriginal peoples and the refugee situation in Australia. This will be followed by a section that outlines the definition of cultural competence and the elements that it comprises. Next, a general framework for developing cultural competence will be presented to support professional efforts in the acquisition of skills and knowledge that form the core of effective and equitable practice. A particularly unique feature of this chapter is the final section, wherein an innovative mechanism is presented for self-evaluation of cultural competency that can serve to gauge the success of one's efforts to improve (see Table 1). It is crucial to the acquisition of cultural competence that it be understood as an ongoing process that cannot be fully realised merely by reading a chapter in a

Table 1 Self-evaluation of cultural competency

How culturally competent is my practice?					
Framework for self-reflection and peer discussion					
Child development through the cultural lens	None	Somewhat	Developing	Satisfactory	Optimal
I have knowledge of the developmental milestones and if achieved at expected times					
I have knowledge of the expectations for acquiring self-help skills and independence					
I have knowledge of the expected tasks/duties for the child and gender differences					
I have knowledge of the behavioural expectations and disciplinary practices					
I have knowledge of the sleeping and eating practices and customs					
I have knowledge of the social expectations and behaviours for children of each gender					
I understand the concerns the family have in relation to the child's development					
Student/parent perspective					
I have accessed a credentialed interpreter in the gender, dialect, and preference of the family					
I establish rapport and build trust through appropriate displays of respect, greeting, interaction, communication style, and body language					
I understand how the family or an individual sees the educational concerns and their view of help seeking					
I have knowledge of the traditional and non-traditional approaches the family utilise in order to assist and problem solve i.e. within family/ extended, community, church, spiritual leaders					
I understand how effective these attempts have been and the meaning/importance attributed to their efforts					
I have knowledge of the religious and spiritual beliefs and how these may impact					

(continued)

Table 1 (continued)

How culturally competent is my practice?					
Framework for self-reflection and peer discussion					
Child development through the cultural lens	None	Somewhat	Developing	Satisfactory	Optimal
I understand the structure and hierarchy of the family and decision-making processes					
I understand the parenting style, child rearing practices and convey respect for these					
I have considered the languages(s) of the family including dominant and preferred modes of communication					
I have considered the degree of and desire for, acculturation into the wider culture, and the extent this may be impacting in positive and negative ways					
I have considered the cultural norms for this family recognising that diversity exists within and across ethnic and cultural groups					
I have comprehensively gathered information which details the cultural identity and environmental history of the child and the family					
I have considered the family's pre-migration history and experiences and the possible impact of these on the educational and presenting concern(s)					
I have gained an understanding of any stigma that may be associated with the educational concern(s) including disability i.e. culture-bound disorders, variations					
I clearly understand all pertinent issues from the family's perspective					
Educational perspective					
I ensure my practice creates and maintains a safe, supportive, and culturally affirming environment					
I practice in a non-judgemental and affirming manner					

(continued)

Table 1 (continued)

How culturally competent is my practice?					
Framework for self-reflection and peer discussion					
Child development through the cultural lens	None	Somewhat	Developing	Satisfactory	Optimal
I have considered that my intervention is appropriate to the culture and beliefs of the family and is compatible with their needs, values, and customs					
I have considered the impact of culture and diversity on the assessment process					
I have considered the cultural foundation and any limitations of the psychological models, techniques, and processes I have employed					
I examine and keep abreast of current research to guide my practice					
Psychological perspective					
I am fully versant with all laws, policies, and professional codes in regard to psychological practice with diverse and Indigenous groups					
I ensure my practice is of the highest professional standards in accordance with relevant guidelines, frameworks, and ethical codes					
I have examined my own sociocultural identity and worldviews i.e. values, beliefs, privilege, attitudes, considered if these impact my clients, and am open to challenging assumptions and biases					
My attitude is respectful, non-judgemental and is affirming of the culture of the family					
I value diversity and have a genuine willingness to learn of other cultures and work *with* them					
I continue to reflect on my level of cultural competence and create learning opportunities to increase this competence					

volume such as this. Rather, cultural competence is the result and evolution of skills, knowledge, beliefs, and attitudes that come from engaging in experiences that require a lifelong attention to cultural issues, whether one is prepared for them or not (Jones, 2009). As will be seen, the most basic step in developing cultural competence requires an honest self-evaluation and the ability to engage in critical self-reflection and insight. However, even just the ability to step outside of one's own cultural point of view and see oneself as others do is not an easy task. Therefore, readers should take heart in knowing that merely being able to look past one's own ethnocentricity is a sufficient and realistic goal for those with little experience with diversity and that it is expected that the higher levels of competency will come with more experience. In this way, it is hoped that the self-reflection framework will continue to provide guidance in this endeavour long after the book has been put down.

The Australian Perspective

Australia is a large continent and its population culturally and ethnically diverse continuing to grow in diversity of culture, language, religion, and country of origin. This diversity has been reshaped by migration with more people migrating to, than emigrating from Australia. In June 2013 there were 23.1 million residents in Australia with an estimated 6.4 million (27.7 %) being overseas born, and 20 % with at least one parent born overseas. Aboriginal and Torres Strait Islander people represented 3 % of the population. Children aged 0–14 years comprised 19 % of the population (Australian Bureau of Statistics, 2013a, 2013b, 2013c). From 1901 to 2012 approximately 786,000 refugee and humanitarian entrants have settled in Australia (Refugee Council of Australia, 2013). Australia's diversity continues to grow as each year an additional 170,000 refugees and asylum seekers and migrants arrive for permanent settlement (Department of Immigration and Citizenship, 2010). Sudanese-born people were the fastest growing group of Australian's born overseas followed by Afghanistan and Iraq. There is great diversity in the languages spoken by children with 19 % of Australian children speaking languages other than English at home, including Indigenous children speaking 109 different languages, of a total of 305 languages identified (Australian Early Development Index, 2013).

Australia's multicultural heritage has enriched society but the diversity of its peoples challenges systems to meet the needs of a wide range of culturally and linguistically diverse groups. The right to responsive health care across all domains for all peoples requires cultural issues to be core business at every level of the health system-systemic, organisational, professional, and individual (National Health and Medical Research Council, 2005). Given Australia's current and growing diversity it is highly likely that cross-cultural encounters will increase between CaLD peoples and psychologists. For school psychologists who typically work with students and families from many diverse cultural backgrounds, including migrant children who are often bilingual, and frequently with refugee children upon resettlement, when children must adapt to a new environment in a different culture, learn a new language, and navigate a distinct school system, they must therefore respond to the call to be culturally competent clinicians (Seymour, 2014).

Children younger than 18 years of age comprise close to 50 % of refugee populations that settle in one of 26 resettlement countries, with the United States, Australia, and Canada being the top three resettlement countries. Whilst the national origins of refugees has shifted over time, reflecting conflict zones and war, the last three decades have seen resettlement from Eastern Europe, Africa, the Middle East, and Southwest Asia (Executive Committee of the High Commissioner's Programme [EC], 2012). Resettled children will bring with them complex cultural, familial, personal, and educational histories (Clinton, Ortiz, & Guilar, 2014) demanding school psychologists develop the skills and competencies to work with these populations, particularly given the field of school psychology has largely been historically Caucasian (Curtis, Grier, & Hunley, 2004) with an ethnic minority under-representation of CaLD school psychologists (Merrill, Ervin, & Gimpel, 2006),

certainly the case in Australia (Pelling, Bear, & Lau, 2006). Currently for example, there are only 81 Aboriginal and Torres Strait Islander psychologists in Australia, representing 0.4 % of the profession, and in order to achieve parity the number of Indigenous psychology graduates needs to increase ten-fold (APS, 2012). School psychologists apply their expertise to support students achieve learning and academic success, psychological health, and social and emotional well-being and as such engage in counselling, consultation, assessment, intervention, evaluation, and critical incident management. They engage with student populations, school and department staff, parents and guardians, and external stakeholders (APS, 2009).

The World Health Organization (WHO) has indicated that by 2020 childhood neuropsychiatric disorders will rise by over 50 % internationally and will be one of the five most common causes of morbidity, mortality, and disability among children (American Psychological Association, 2004). Additionally it has been found that some CaLD populations have disproportionate and higher incidence rates for special education such as emotional disturbance and mental retardation (U.S. Department of Education, 2006). For newly arrived refugee students to Australia it has been recognised that there is potential for over-diagnosis of intellectual disability due to a number of reasons including limited or lack of schooling and the impact of trauma on their ability to learn (Kaplan, 2009). Australian surveys have found that between 14 % and 18 % of children aged 4–16 years experience clinically significant mental health problems, equating to in excess of 500,000 individuals. If at risk groups are considered such as those with developmental disabilities and learning problems, the maltreated, children in foster care, those with comorbid substance abuse or those who live with parents challenged by mental health issues, as is particularly the case with high numbers of refugees who suffer from comorbid and severe mental health problems (Murray, Davidson, & Schweitzer, 2008), disability or substance abuse, the burden is likely to be far greater. Other groups of children identified as having a greater risk of developing mental health problems than their peers include Aboriginal children and refugees (Australian Infant and Adolescent and Family Mental Health Association, 2011).

While the prevalence rates of mental health problems in refugee children vary widely across studies (Henley & Robinson, 2011) it is accepted that the many challenges faced by such children over significant periods of time are likely to overwhelm their resources. The combinations of conditions of adversity and exposure to violence in countries of origin, followed by migration and subsequent resettlement, expose children to many risks to their physical, emotional, and social development and functioning (Seymour, 2014). Findings from data collection by the Victorian Foundation of Survivors of Torture found that in children under 18 years who had been exposed to high levels of trauma, 44 % had experienced combatant fire, 33 % severe beatings, 78 % war-related loss and separation, and 94 % witnessed harm to their family (Kaplan, 2009). Unaccompanied minors, defined as ‘those who are separated from both parents and are not being cared for by an adult who, by law or custom, is responsible for doing so’ (United Nations High Commissioner for Refugees, 1994, p. 52) and asylum-seeking children, defined as ‘people who have requested international protection and whose claim for refugee status has not yet been determined’ (United Nations High Commissioner for Refugees, 2008, p. 13) without caregivers, are at particularly high risk and reported to have high frequencies of mental health problems (Wiese & Burhorst, 2007).

Exposure to ongoing stress and traumatic events can impact the structural development of children’s brain and nervous system stress responses. The effects of trauma in children are multiplied as critical brain structures are developmentally more susceptible to disruption than that for mature adult brains (Australian Childhood Foundation, 2010). Mental health issues adversely impact a child’s emotional, behavioural, and social functioning and academic achievement (Australian Psychological Society, 2009). As schools play a central role in their lives, it is often here they are first identified and most likely to receive assistance. This is particularly the case for Indigenous children, children in remote areas, and those in socio-economically

disadvantaged areas due to reasons such as physical access to services, cultural barriers, and affordability (AIHW, 2009). School psychologists already and will continue to be confronted with children with mental health issues. The need, therefore, for specialised psychological intervention and support, is indisputable (Australian Psychological Society, 2009). Given the unique cultural composition of Australia and Australian schools and the cultural diversity that exists across the western world with 214 million people living outside their country of origin (United Nations, 2010) school psychologist cultural competence will become increasingly important and a stronger emphasis upon increasing multicultural competence required.

Relevant Guidelines and Ethical Considerations-Standards of Practice

Cultural competence is recognised in a range of psychology ethical codes and guidelines, training and registration frameworks of the profession, and mental health policies. The psychology profession in Australia is regulated by the Health Practitioner Regulation National Law Act ('the National Law'). Not including non-practising registrants, there are 31,820 psychologists in practice across Australia (Psychology Board of Australia, 2016), and a significant number of those are school psychologists (APS, 2009). Psychologists are registered with the Psychology Board of Australia (PsyBA) which functions as a subsidiary of the federal governments Australian Health Practitioner Regulation Agency (AHPRA). PsyBA has developed *Guidelines on areas of practice endorsements*. These set out the competencies required as a registered psychologist. The development of multicultural competence is a registration requirement. Core competency 'G' pertains to cross-cultural issues requiring psychologists achieve the competency to work 'within a cross-cultural context-this includes demonstrating core capabilities to adequately practice with clients from cultures and lifestyles different from the psychologist's own' (PBA, 2010, p. 7).

Similar to the American Psychologists Association in the United States the leading voluntary professional organisation for psychologists is the Australian Psychological Society (APS). The Code of Ethics (2007) developed by the APS and adopted by the Psychology Board of Australia, articulates and promotes ethical principles, and sets standards to guide ethical professional conduct. The Code mandates psychologists to respect and protect people's human rights and dignity (General Principle A), avoid unfair discrimination (on the basis of age, religion, sexuality, ethnicity, gender, disability, or any other basis proscribed by law) (Standard A.1.1), demonstrate knowledge of the consequences of unfair discrimination (Standard A.1.2), and assist clients to address unfair discrimination (Standard A.1.3). The other two general ethical principles are propriety and integrity. This recent revision of the code has in an explanatory statement made explicit that 'psychologists must have a high regard for the diversity and uniqueness of people and their right to linguistically and culturally appropriate services' (APS, 2007, p. 11). The Code also addresses the use of interpreters, and this will be discussed later.

Guidelines for the particular needs of Aboriginal Australians are recognised and outlined in *the provision of psychological services for and the conduct of psychological research with Aboriginal and Torres Strait Islander Individuals* (APS, 2003). Beyond this no other specific ethno-cultural guidelines exist; however, cultural competence and recognition of diverse life experiences are referenced within other guidelines requiring that psychologists develop professional competency in a number of areas. These include understanding the impact of cultural and linguistic diversity on identity development; the effects of racism and prejudice; the intersection of gender with cultural differences; and differences in the expression of and experience of distress, and developing knowledge in the intersection of culture, diversity, and formal assessment processes. Whilst these frameworks provide some level of guidance for psychologists in practice with diverse groups Australia is far behind other similar western countries such as

the United States (American Psychological Society, 2002a) and New Zealand (New Zealand Psychological Society & New Zealand Psychologists Board, 2011) in requirements for culturally competent practice and competencies, the latter having highly developed requirements for culturally competent practice as well as for the recognition of cultural diversity.

A requirement for annual renewal of psychology registration is completed continuing professional development (CPD). This is mandatory to maintain registration as a psychologist. Psychologists determine their individual needs or areas of deficit and undertake professional development, which maintains and further develops their professional skills, knowledge, and expertise. Supervision is mandatory for psychologists; provisional registration is the type that allows the individual to complete a period of supervised practice that is required for general registration as a psychologist (PBA, 2012). Acquiring cultural competence is an ongoing accumulative process, and both supervision and continuing professional development requirements are two ways; some others including cultural immersion, clinical experience working with CaLD clients, and personal research are discussed later, where this developmental process may begin.

Australian Mental Health Policy and Standards of Practice

The National Mental Health Plan 2003–2008 is complemented by *The Framework for Implementation of the National Health Plan 2003–2008 in Multicultural Australia,* (2004) in order to specifically address the needs of CaLD people. It provides strategies for all health and community sectors from government and non-government organisations, to meet nationally accepted standards of service delivery and practice in the provision of culturally competent and appropriate services. It identifies challenges in service provision as: ensuring that mental health needs of CaLD people are met; developing public policy to ensure equity and access for a diverse community; planning and delivering culturally competent and appropriate services; and developing and maintaining a culturally competent workforce.

The National Practice Standards for the Mental Health Workforce (National Practice Standards for the Mental Health Workforce, 2013) make explicit the shared knowledge and skills necessary when working in a mental health environment. These complement the practice standards or competencies for five disciplines including psychology. These standards relate to mental health practice across the lifespan and include services for children and young people. Standard 3: Meeting diverse needs and Standard 4: Working with Aboriginal and Torres Strait Islander people, families, and communities, specifically pertain to mental health services with culturally diverse groups. These two standards require that the social, cultural, linguistic, spiritual, and gender diversity of people, families, and carers are actively and respectfully responded to by the practitioner and those differences incorporated into practice, and in work with Aboriginal and Torres Strait Islander peoples mental health practitioners reduce barriers to access, provide culturally secure care systems, and improve social and emotional well-being.

A Framework for Cultural Competence

When one hears it, there is an inherent sense of understanding and confidence in the value and meaning of the term, ‘cultural competence’. It just sounds right and it has a very solid ring of equity and fairness to it. Moreover, there is an air of simplicity to it—just be competent when it comes to culture. So it may be somewhat surprising to learn that there is no single, universally accepted definition of cultural competence. The specification of standards for expected levels of skill or expertise is probably easy enough to quantify. But precisely what defines that proficiency in terms of, or relative to, culture is an entirely different exercise. Culture, and what defines it, as well as the manner in which it affects and influences the delivery of appropriate school psychology services is not nearly so easy to circumscribe as it first appears.

Fortunately, despite the varying definitions that have been offered, there is actually a good deal of overlap and numerous common elements that permeate the differing perspectives.

The notion of cultural competence is not a new concern. Perhaps because of the degree of direct involvement, the field of health services has given rise to a general definition that captures most of the basic elements of all others. In summary:

> Cultural competence is a set of values, behaviours, attitudes, and practices within a system, organization, program, or among people to work effectively across cultures. It refers to the ability to honour and respect the beliefs, language, interpersonal styles, and behaviours of individuals and families receiving services, as well as staff who are providing such services. Cultural competence is a dynamic, ongoing, developmental process that requires a long-term commitment and is achieved over time (U.S. Department of Health and Human Services, 2003, p. 12).

In Australia the following definitions of cultural competence are widely cited and serve as useful reference points

> Cultural competence is a set of congruent behaviours, attitudes and policies that come together in a system, agency or among professionals and enable that system, agency or those professionals to work effectively in cross cultural situations (Cross, Bazron, Dennis, & Isaacs, 1989). Cultural competence requires that organisations have clearly defined, congruent set of values and principles, and demonstrate behaviours, attitudes, policies, structures and practices that enable them to work effectively cross-culturally (National Centre for Cultural Competence [NCCC], 2006).

With respect to an overarching definition of cultural competence applicable to education, Petty (2010) provides a very useful framework for understanding the term's basic intent as outlined in three basic components:

1. A set of values and principles, demonstrated behaviours, attitudes, policies, and structures that enable people to work effectively in cross-cultural settings;
2. Demonstrated capacity to (1) value diversity, (2) engage in self-reflection on one's own cultural reference points, conscious and unconscious assumption, biases, power, and areas of growth, (3) build cross-cultural understanding over time with an ongoing commitment to continual growth, (4) build knowledge and understanding of historical and current systemic inequities and their impact on specific racial and other demographic groups, (5) adapt to the diversity and cultural contexts of the students, families, and communities served, (6) effectively manage the dynamics of difference, (7) support actions which foster equity (not necessarily equality) of opportunity and services; and
3. Institutionalisation, incorporation, evaluation of, and advocating for the above in all aspects of curricular development, instructional practice, leadership, policy-making, administration, practice, and service delivery while systematically involving staff, students, families, key stakeholders, and communities. (p. 15)

Of particular note is principle 2 and the delineation of relatively specific objectives that support the goal of cultural competence. The objectives vary considerably in terms of the degree of knowledge, skill, and experience that must be applied in service of each. For example, to 'value diversity' requires no direct action or acquisition of any skill set or body of knowledge. It may not be an easy task, but it is a personal decision that can be made once a commitment to is adopted. Conversely, being able to 'effectively manage the dynamics of difference' is not only a little less clear, but it also certainly encompasses an activity that is inherently complex and requires considerable knowledge and extensive experience. Petty (2010, p. 17) refers to these varied expectations in terms of 'cultural responsiveness' that range from 'generic awareness' at the lower end of competency, to 'culturally responsive practice' that represents a higher level of skill, to 'structural inequality' which represents a level of practice that focuses on changing systems to address disparities in power, privilege and address barriers to success for members of diverse groups. As noted previously, Petty (2010) also acknowledges the inherent difficulty in being able to navigate from the lower, simpler elements of cultural competence to the more advanced, higher-order skills at the upper

levels of the hierarchy and advises a realistic approach that begins with self-awareness. She notes, 'becoming aware of our biases and tendencies is an essential first step in addressing discrimination in society' (p. 18). This advice is reinforced by the positioning of the second component in principle 2 that recommends engagement 'in self-reflection on one's own cultural reference points' immediately after the need to value diversity.

A similar cultural competence framework specifically formulated for school psychologists was presented by Ortiz, Flanagan, and Dynda, (2008) and which was also based on three basic principles: knowledge, communication, and awareness. Knowledge refers to the need to develop and acquire a body of information related to, among many, school culture and family culture. It is important to note that the requisite knowledge is less concerned with factual information about a particular school or culture but more focused on an understanding of each as a system and the context in which a student's and his family's behaviours, beliefs, attitudes, and values are formed.

Ortiz and colleagues (2008) note that:

> …development of a knowledge base that serves as the foundation for understanding the manner in which family systems work and how they represent cultural entities and transmit culture across generations is crucial to the proper selection and design of educational services by school psychologists (p. 13).

In a newsletter article asking the question regarding how one becomes culturally competent, Clay (2010) paraphrases experts on the topic who note, 'that competence with one group doesn't mean you're competent with another' (p. 24). Thus, the element of knowledge within a cultural competence framework is less about notions regarding the study of a particular group (albeit, this can be helpful) but more about being able to recognise what constitutes cultural differences in the first place.

To this end, Ortiz and colleagues (2008) describe the communication component of their framework as being best represented by a 'school psychologist's ability to view and appreciate the world from the family's perspective(s)' (p. 16). The adoption and use of a systems view when providing services to culturally and linguistically diverse children and families provide a foundation for being able to work with individuals from a wide range of backgrounds and experiences, not simply those from a single culture or ethnicity. Moreover, it is incorrect to assume that all individuals from the same culture or ethnicity share the exact same values, attitudes, beliefs, languages, and so forth. This is not to say that there are no cultural factors that can be safely and accurately generalised—after all, it is precisely because they do share many similarities that permit valid application of the term 'culture'. Nevertheless, when narrow assumptions are used to describe and interact with all individuals from the same or similar cultures, the result is likely to be bias in the form of stereotyping rather than culturally appropriate service delivery (Ortiz et al., 2008).

The final component of the Ortiz and colleagues (2008) framework is awareness. Despite its placement as the third principle, the authors did not intend to give any meaning to the order, and they emphasise this point by noting that, 'cultural self-awareness represents the first step to developing skill and competency in cross-cultural service delivery' (Ortiz et al., 2008, p. 16). The importance of self-reflection and its role in being able to develop a sense of self-awareness regarding one's own personal beliefs, attitudes, and perspectives as well as an honest appraisal regarding how one is viewed by others from diverse and different cultures cannot be over-stated. In addition to the Petty (2010) model outlined previously, virtually all models of cultural competence stress this particular skill and its centrality to successful service delivery (Halsell Miranda, 2014; Weigl, 2009). For these reasons, the reflective framework for self-evaluation in cultural competency presented later in the chapter is designed to assist practitioners in their efforts to step outside of their own culture and see the world from what may well be a completely alien, but necessary perspective.

Apart from sharing several common elements, models of cultural competence often use similar terminology, particularly the terms 'culture', 'race', and 'sensitivity'. This does not mean, however, that the meaning of each term remains consistent

across models, and it is important to review them here so that school psychologists might better discern the intent of any given model.

One would think that 'culture' is probably not one of the terms that might be seen as ambiguous—yet, it is. Too often, culture is equated only with racial or ethnic differences. But this is a very narrow and restrictive definition. A more applicable definition to school psychology practice is one that includes attention to an individual's unique background and experiences and the manner in which they have combined to produce the circumstances in which an individual has developed along every important dimension (e.g., linguistic, cognitive, affective, etc.) (Ortiz et al., 2008). In this way, everyone's culture becomes central and important in the educational system, including those who are raised in the cultural mainstream. Adopting a broader definition of culture prevents stereotyping and the tendency to dismiss or ignore environmental circumstances (rooted in culture) from being examined as potential causes for poor academic performance. Such circumstances that may be viewed as culturally based include socio-economic status, gender, sexual orientation, and religion among many others. For the purposes of this chapter, culture is defined in the broadest sense.

The word 'race' is generally well understood in terms of its meaning. However, it must also be recognized that it is a socially constructed category that has no basis in science and rests entirely on the notion of skin colour. Individuals from all over the world may well share characteristics that can be described as fitting one particular race or another, but that does not mean they also share similar experiences, languages, or cultures. Moreover, it has been asserted that the function of the term race and its use in society are primarily to maintain current disparities in terms of wealth, privilege, or power. For example, Green (2003) writes:

> There is a connection between the need to establish clear boundaries between ethnic, class, sexual, and other groups in our society and the existence between privilege and social disadvantage. The need for socially constructed boundaries between heterosexuals and lesbians and gays, men and women, lower and upper socioeconomic classes, people of colour and White Americans and other groups, is not to provide accurate descriptive information about them. These boundaries are in place to maintain and justify the system of social privilege and disadvantage associated with those characteristics. The ultimate goal is to make sure that the privileged maintain their privileged access and that others do not have similar access. (p. 3)

Culturally competent school psychologists should recognise the limitations and disadvantages of the term and concept of race and instead may be better served to view differences in terms of the broad definition of culture that does not carry with it any necessary or implicit association with oppression.

And finally, practitioners should recognise the potential problems with the term 'sensitivity'. The term is often intended in a positive manner indicating that practitioners should demonstrate some degree of sensitivity towards the student or family to whom services are being rendered. While use of the term may be nobly intended, it can also have unintended negative consequences in that it has a connotation that is distinctly patronising. To be admonished by one's professional organisation to be 'sensitive' to others from diverse backgrounds implies a disparity of status that reinforces the power of the majority. In this sense, it almost acknowledges the perceived 'weakness' of the minority that is couched somewhat in terms of 'hurt' feelings. Whether intentional or not, practitioners may be better served to replace the term *sensitivity* with *competency* which has none of the potential negativity and which reinforces good practice by indicating a desired level of knowledge and skill.

Culturally Competent Practice in Context

We have endeavoured to emphasise throughout the chapter that development of cultural competency is an admittedly difficult proposition even for the most committed and ardent school psychologist. Apart from the inherent difficulties already discussed, the reality is that current training programmes often prove to be inadequate training grounds, and for a variety of reasons, do

not or cannot provide the types of experiences required to engender even a rudimentary level of cultural competency. In Australia, for example, training in cross-cultural practice skills provided to psychology students is very limited (Lee & Khawaja, 2012). This is not because training programmes fail to address the issue. Rather, it is more likely due to the lack of priority placed on this particular area of competency as compared to other areas that are typically emphasised (e.g., assessment, consultation, intervention) and in which cultural issues are rarely included. According to Helms (as quoted in Clay, 2010):

> 'Traditional models of training don't focus very much on learning how to adapt one's skills to different populations…People still have a tendency to make cultural competence the topic they cover at the end of the semester, so they really don't cover it very well'. (p. 24).

For training programmes to be successful in producing graduates with the level of cultural competency required by professional organisations, it must be integrated across the curriculum and be a central part of each and every course. Otherwise, the reality is that cultural competence will remain only an aspirational goal.

Graduate training is not the only mechanism, however, by which school psychologists can develop solid cultural competence. There are various activities that can provide the appropriate circumstances and experiences to foster one's ability to improve and enhance cultural competency in school psychology (Clay, 2010; Halsell Miranda, 2014; Pedersen, 2002). In general, these activities can be grouped into four basic categories: (a) cultural self-awareness; (b) knowledge of other cultures; (c) interactions with diverse populations; and (d) involvement, advocacy, and leadership.

Culture self-awareness. Each of us has a unique set of beliefs and attitudes formed from our personal experiences, that is, from the culture in which we were raised. Likewise, each of us has a unique set of biases and prejudices that also stem from that same culture. The problem is that when we cannot break out of our ethnocentric perspective, and we may not be able to differentiate the former from the latter. In fact, there may be no difference. The point of cultural self-awareness is to gain insight into one's own personal culture and how it shaped us in a way that directly influences our behaviour, including the delivery of school psychology services (Weigl, 2009). For example, knowing that the financial reality in one's life that made a college or even a high school education a perfunctory value and an attainable goal does not mean that others with less economic opportunity must also prize or aspire to the same level of education. Failure to recognise the circumstances that shaped our own values may well result in erroneous expectations that all others with whom we work must share them. Because what we believe, think, and feel is such a natural part of who we are and how we have been for our entire lives, it is difficult to step away from them to examine their subconscious influences on the many decisions we make and the actions we take. Cursory self-examination is unlikely to reveal these subconscious predispositions, and when rooted in socially unacceptable beliefs (i.e., racism), we may not even want to acknowledge that they exist at all. For most of us, honest self-reflection can be a rather unpleasant and ugly proposition. However, it need not be unduly associated with guilt or shame and is not productive if it is viewed as a judgemental exercise. The goal is to recognise the roots and sources of one's biases, accept that they can unintentionally prevent equitable service delivery, and commit to actions that will prevent them from doing so. It is easy to see how this task goes hand in hand with valuing diversity. If there is no a priori commitment to the idea that individuals from diverse cultural backgrounds are worthy of our respect and deserving of our best efforts in service delivery, then there is little point in self-reflection or any attempts at becoming culturally competent.

Halsell Miranda (2014) describes five steps necessary for the development of cultural self-awareness. They include: (1) identification and acknowledgement of one's own biases; (2) recognition that not all people everywhere share the school psychologist's own beliefs, attitudes, and values and that different does not mean inferior; (3) a commitment to value the diversity in one's situation and view it as a positive opportunity; (4) willingness to step outside one's comfort zone

and initiate interactions with diverse individuals both inside and outside the educational system; and (5) repeated exposure to interactions with diverse individuals and situations that fosters more ease and comfort in delivering services.

Knowledge of other cultures. There are two components to this particular category for developing cultural competency. The first involves acquisition of knowledge regarding culture as a system and appreciation of the pervasive effect it has on shaping individuals in every way. This includes an understanding and recognition that culture is a broad term that encompasses variables that go well beyond traditional notions of race or ethnicity. In this sense, cultural competency is not merely a skill applied only in service of particular clients but rather a foundation of non-discriminatory practice applicable in *every* case (Ortiz, 2014). Being able to provide appropriate and equitable service delivery is unlikely to be achieved whenever cultural factors are ignored, misunderstood, or dismissed summarily, irrespective of the individual's particular characteristics related to diversity or lack thereof. To this end, school psychologists may find the literature on family systems and ecological perspectives extremely helpful in gaining a full understanding of the enormous impact culture has on an individual's development (Halsell Miranda, 2014; Sheridan, Clarke, & Christenson, 2014).

The second component regarding knowledge of other cultures is perhaps one of the activities most familiar to school psychologists as it involves the acquisition of information that is relative to a particular culture. This type of knowledge often comes from direct contact and interactions that may encompass such activities as travel to and residence in other countries, extended intercourse and social relationships with individuals from diverse backgrounds, and immersive cultural and linguistic learning experiences. The dramatic increase in access to information via internet-based technology provides an unprecedented opportunity for virtually unlimited information gathering regarding any aspect of any individual's diversity. School psychologists are cautioned, however, not to assume that all available information is accurate or that any particular characteristic of diversity (e.g., ethnicity, language, sexual orientation) is completely applicable without alteration in every case. Nevertheless, there is no longer any excuse for the failure to secure information that might be relevant and helpful in addressing aspects of diversity in delivering services.

Interactions with diverse populations. There is no substitute for direct contact and experience with diverse individuals and situations. Unfortunately, as noted previously, such experience is unlikely to stem from the typical type of graduate training experiences and education provided to school psychologists. Moreover, activities that provide indirect information and generalisations about various aspects of culture can only go so far in terms of their relevancy to a particular person or group. As noted by Halsell Miranda (2014), 'culture is a continuum and the reality is that people from a certain cultural group do not always embrace all aspects of the culture in the same way' (p. 13). Any failure to engage in direct personal or professional contact with diverse individuals is likely to lead to inaccurate generalisations at best and harsh stereotyping at worst—neither of which will promote competent practice. School psychologists have little choice but to accept that diversity exists and then intentionally seek to engage with it and learn from it. The types of surface features of a given culture that are easily identified (e.g., language, food, traditions, beliefs, etc.) are insufficient to foster cultural competence in the absence of actual experience and interaction with diverse individuals. Actively engaging in novel situations where aspects of diversity may be encountered requires a fair amount of personal courage due to it being inherently unfamiliar and uncomfortable. One's confidence is easily challenged in such situations and the attendant anxiety that results often inhibits the tendency to embrace the challenge. As a consequence, it may be easier for school psychologists to begin with interactions that are more causal and less likely to provoke anxiety. Much as with the information technology discussed previously, so too has the ubiquity of a wide range of electronic communication applications now even readily accessible in

mobile devices provided a means for engaging in interactions with individuals from diverse backgrounds with unparalleled ease. These interactions may rely on traditional written exchanges delivered electronically (e.g., email, chat), but many also provide features that include images, voice, and video. It is relatively easy to open synchronous communication with almost anyone, anywhere and use that experience to interact in a manner that promotes cultural learning with less potential for stress and anxiety.

Involvement, advocacy, and leadership. It is one thing to ask that diversity be valued. It is another to ask that it be valued and considered properly to promote equitable and culturally competent practice. But it is something else entirely to ask that one engage in activities that require personal involvement and efforts in advocacy and leadership regarding diversity. Nevertheless, such an expectation remains a specific requirement for school psychologists as noted in the NASP Practice Model (2010), 'school psychologists…promote effective services, advocacy, and social justice' (p. 3). This requirement is fully embedded in the expectations for professional conduct for Australian school psychologists, which is guided by the APS Code of Ethics. Within the specified guidelines, an advocacy component is expressed in terms of school psychologists' responsibilities to their clients, to the community and larger society, and to the profession. This also includes colleagues and members of other professions with whom they interact (APS, 2007, p. 7). Having achieved the level of competency that is engendered by the three prior categories of learning activities would itself represent an impressive accomplishment for any school psychologist. But stopping at that point is unlikely to result in the types of changes necessary to address the very disparities that required their development and use in the first place. Turning one's head and hearing away from the telling of a racist joke is not the same as confronting the individual who told it. But even the act of confrontation is unlikely to create significant improvement or change relative to issues of diversity when the bias is an endemic part of a larger system such as a school staff, district policy, community attitudes, and general societal values (Petty, 2010). In a way, the ultimate goal of cultural competence is to create an environment or system in which diversity is merely a typical characteristic of any culture and where culturally competent practice is viewed as just standard practice. There can be little debate that advocacy for a particular issue requires a thorough and comprehensive understanding of and experience with it, and thus the benefits for learning and the development of cultural competence are obvious. The level of expertise that emanates from this type of activity is exceedingly high but also requires substantial personal and professional investment. Consequently, it is likely that there will be few school psychologists who will successfully explore these realms of learning or achieve such lofty levels of competence. Aspirational or otherwise, advocacy and leadership should remain a goal for school psychologists as it represents the most powerful platform for engaging in culturally competence practice (Halsell Miranda, 2014; Sheridan et al., 2014).

Apart from general cultural learning strategies, there are also specific topics and areas of practice that merit a more detailed discussion in terms of the manner that school psychologists might be guided more directly in addressing them. To that end, the rest of this section provides a brief review of some of these (e.g., psychology and Aboriginal cultural competency, cultural aspects of family systems, acculturation, working with interpreters) as well as recommendations for practice that would constitute cultural competency.

Psychology, Psychologists, and Aboriginal Cultural Competence

Psychology has a fairly recent history across Australia in relation to Aboriginal and Torres Strait Islander mental health and well-being (Dudgeon, Rickwood, Garvey, & Gridley, 2014). Prior to this the profession and discipline of psychology have been almost entirely silent on social justice in relation to Indigenous Australians (Gridley, Davidson, Dudgeon, Pickett, & Sanson, 2000). In fact few white psychologists working for welfare agencies

up until the 1980s challenged the practice of removing Aboriginal and Torres Strait Islander children, some 100,000 (Stolen Generations) under child protection laws, from their families as they were regarded as 'neglected' (Bretherton & Mellor, 2006). Aboriginal and Torres Strait Islander peoples are suspicious of and are reluctant to engage with psychology as a profession. Awareness of pre-colonial and post-colonial Indigenous history will assist psychologists understand this distrust, learn from the mistakes, and move forward (Dudgeon et al., 2014). Demonstrating cultural competence will develop the trust and confidence of Aboriginal people in the services psychology can provide (Purdie, Dudgeon, & Walker, 2010). This is particularly relevant for school psychologists working with Aboriginal children and youth who have been found to have a higher overall incidence of mental health, behavioural and emotional problems resulting from many issues, some being family and household factors, racism, poverty, physical ill health, and intergenerational trauma, than non-Aboriginal young people (Zubrick et al., 2005). The West Australian Aboriginal Child Health Survey (WAACHS) clearly provides detailed information on the social and emotional well-being of ATSI children. This section describes some of the key developments and events in Australia over the last two decades where the discipline of psychology has responded to and been supportive of the Aboriginal mental health movement with particular focus on Aboriginal cultural competence. But first a discussion of social and emotional well-being (SEWB) and mental health from an Aboriginal and Torres Strait Islanders' perspective is presented as understanding this will assist school psychologists in their approach and interventions when working with and meeting the needs of Aboriginal children.

SEWB has been defined as a multidimensional concept of health, including mental health, which includes the domains of health and well-being such as connection to land, 'country', culture, spirituality, ancestry, family, and community. As such SEWB problems, as determined by Indigenous people, encompass a broad range of problems that result from unresolved grief and loss, trauma and abuse, domestic violence, removal from family, substance misuse, family breakdown, cultural dislocation, racism and discrimination, and social disadvantage (Social Health Reference Group [SHRG], 2004). The term 'social and emotional well-being' is preferred as it offers a less loaded term to describe mental health, reflects a more positive approach to health, and is seen as an Aboriginal concept that differs in critical ways to non-Indigenous concepts of mental health (Henderson et al., 2007). The Aboriginal world-view conceptualises health in terms of wellness within all aspects of life where a western perspective identifies physical, mental, emotional, and spiritual health, as separate entities (Bishop, Vicary, Mitchell, & Pearson, 2012). The well-being of the whole community is paramount and vital for the health and well-being of the individuals that include it. The bond between person and land is a critical connection that constitutes one's sense of personal and social identity and responsibility (Garvey, 2008). Knowing this will contribute to the school psychologist providing a culturally competent and respectful service for the benefit of Aboriginal children and their families.

In 1991 the APS Interest Group on Aboriginal Issues, Aboriginal People, and Psychology was formed, advocating on Aboriginal and Torres Strait Islander issues. In 2012 the group became the Aboriginal and Torres Strait Islander Peoples and Psychology Interest Group (ATSIPP) and continues to contribute to professional development with psychologists and other professionals, submission and position papers, and organise conferences. A working party was established in 1993 by the APS to prepare guidelines for psychologists in working with Aboriginal people, and these now form part of the Ethical Guidelines companion booklet to the APS Code of Ethics, by which all APS psychologists are required to abide. The Guidelines for the provision of psychological services for and the conduct of psychological research with Aboriginal and Torres Strait Islander people of Australia were revised in 2003. The APS has acknowledged that Indigenous people individually and collectively have been substantially impacted by the European settlement of Australia, through policies of assimilation and by forced removal and relocation (APS, 2003).

Responding to the disparities in social and emotional well-being and mental health outcomes for Indigenous peoples, concerned Aboriginal and Torres Strait Islander psychologists from across Australia met in 2008. This was a significant event and resulted in the formation of the Australian Indigenous Psychologists Association (AIPA), under the auspices of the APS. AIPA is 'committed to improving the SEWB and mental health of Aboriginal and Torres Strait Islander peoples by leading the change required to deliver equitable, accessible, sustainable, timely and culturally competent psychological care which respects and promotes their cultural integrity' (AIPA, 2009). Recognising the large and increasing mental health issues and gap with Indigenous people AIPA developed its Journey towards Cultural Competence with Aboriginal and Torres Strait Islander Peoples and since 2010 has delivered cultural competence workshops to over 1100 mental health practitioners including 600 psychologists across Australia.

Aboriginal Cultural Competence

In Australia, as similar internationally, cultural competence has grown from the need to make health care systems more inclusive of Indigenous clients (Thomson, 2005); however, research addressing cultural competency in Australia has lagged behind with studies focussing more on the impact refugee and culturally diverse status can have on mental health (Lee & Khawaja, 2012). Psychologists in Australia, for example, were found to be only 'somewhat comfortable' and confident in psychological practice with multicultural groups emphasising the urgent need for them to become competent (Pelling, Bear & Lau, 2006). Despite this it has been recognised that Australian Indigenous people have unique needs with regard to service provisions due to the colonial, social, cultural, economic, political, historical, and contemporary experiences that distinguish them from other culturally and linguistically diverse groups and, therefore, should be distinct from multicultural cultural competency (Grote, 2010). To this end Aboriginal cultural competence is discussed including initiatives promoting cultural competence, at the institutional level.

Cultural competence for Aboriginal children, their families and communities, is a vehicle through which they can be given due to respect and honour and in the context of a history of racism and cultural abuse experiences. Additionally it enables the broader Australian community to understand and appreciate the pride and resilience Aboriginal people have about their culture as well as enabling the broader community to celebrate and also take pride in this oldest culture (Victorian Aboriginal Child Care Agency, 2008). To date the literature does not provide a definition of Indigenous Australian cultural competency (Walker, Schultz, & Sonn, 2014) and instead has adopted a commonly cited definition drawn from the health education literature: 'a set of congruent behaviours, attitudes, and policies that come together in a system, agency, or among professionals and enable that system, agency, or those professionals to work effectively in cross-cultural situations' (Cross et al., 1989). The concept of cultural competency and certainly within the Australian Indigenous context is relatively new, and as such developing a definition of Indigenous CC for all professionals providing human services to Indigenous peoples is needed (Grote, 2010). For practitioners including school psychologists, the current definition requires the integration of attitudes, values, knowledge, understanding, and skills that promote effective interventions with cultural groups different to their own. For example, having a good knowledge of Indigenous culture, understanding how the process of colonisation and the power dynamic it has created has impacted on the relationship between Aboriginal and non-Indigenous people, understanding successive government policies and the effects of socioeconomic factors, including extreme poverty, will contribute to the school psychologist becoming more culturally competent. It also includes both internal and external factors, including self-assessment of one's own cultural heritage, reflecting on personal values and knowledge of other cultures and practices, and a consciousness about the interactions between them (Universities Australia, 2011).

There are a number of key elements fundamental to Aboriginal cultural competence (Victorian Aboriginal Child Care Agency, 2008). These include cultural awareness-understanding the role cultural difference and diversity plays, commitment to Aboriginal self-determination and the building of respectful partnerships, valuing Aboriginal peoples and their culture, cultural responsiveness-having the ability and skills to assist different cultural groups, and creating a safe and welcoming service environment for Aboriginal peoples. It also includes cross-cultural practice and care in terms of being able to relate and provide services to Aboriginal people, and self-reflection-examining how one's own culture and dominant culture generally impacts Aboriginal peoples. Cultural competence is a continuous, dynamic, and interdependent process constructed by, and within the context of, human relations and their environments and an ideal to be strived for rather than an end point (Walker et al., 2014). The *Critical Reflective Framework of Analysis* (Walker et al., 2014) offers a process to enhance professional competence through reflection upon self, others, the discipline and codes of professional conduct, and the broader historical and current contexts in which their work is situated.

Universities Australia in collaboration with the Indigenous Higher Education Advisory Council (IHEAC) undertook a 2-year project, 2009–2011, on *Indigenous Cultural Competency in Australian Universities.* This project sought to provide the Australian higher education sector with a best practice framework which embedded cultural competency at the institutional level to provide encouraging and supportive environments for Indigenous students and staff. It also sought to embed in graduates the knowledge and skills required in providing genuinely competent services to the Australian Indigenous community. The definition of cultural competency for the purposes of the higher education context is defined as: student and staff knowledge and understanding of Indigenous Australian cultures, histories and contemporary realities and awareness of Indigenous protocols, combined with the proficiency to engage and work effectively in Indigenous contexts congruent to the expectations of Indigenous peoples (Universities Australia, p. 171).

Cultural competence in this context encompasses the ability to reflect on one's own culture and professional paradigms; requires an organisational culture to be committed to social justice, human rights, and reconciliation which values and supports Indigenous culture and peoples; and embraces policies, procedures, mechanisms, and allocation of resources to foster culturally competent practice at all the levels of the institution (Universities Australia, 2011).

Cultural Aspects of Family Systems

Culture, previously defined, transcends racial, ethnic, religious affiliations, language, and other social variables in that there may be differences in the extent people of the same social group identify with a particular culture (Geva & Weiner, 2015). Within each cultural group, therefore, is a tremendous amount of variability and individual differences, some of these contributory factors relating to acculturative adaptation style, language, gender, group history, values, and belief systems. Acculturation is a dynamic process as it impacts functioning in society and is discussed later. Culture has many dimensions also mentioned previously. It encompasses surface culture, such as food, language, dress, and also includes dimensions of gender and family roles, child rearing practices, kinship and relationship roles, patterns of authority and hierarchies, communication, spirituality, and many other conceptualisations. Lee, Cosby, and deBaca (2007) believe culture is the lens through which the world is viewed. For a school psychologist a cultural lens means viewing each student and their relationships from the perspective of their family and their community rather, than the psychologist's own.

Cultural Identity

It is essential for the school psychologist to gain an understanding of a student's cultural identity, as this will be instrumental in promoting effective, genuine relationships and interventions with the student and the family as well as conveying

genuine respect and affirmation of that identity. Cultural identity can be understood as a person's perception of themselves as a 'cultural being', how that defines him or her as an individual and also as a member of a larger cultural group (Baruth & Manning, 2012). Cultural identity is also instrumental in shaping a person's worldview, attitudes, beliefs, thoughts, behaviours, and opinions (Romero & Branscome, 2014). Culture is the fundamental building block of identity and for children paramount to them developing a strong sense of who they are as well as where they belong. Respecting and understanding a child's culture and cultural identity will assist in understanding how the student navigates between the culture of origin and the new culture. School psychologists should earnestly endeavour to understand as well as appreciate each student and their family's unique cultural identity. Conversation that elicits information about which groups the family identify with and how the student views themselves culturally, for example, will provide valuable information about cultural identity (Ecklund & Johnson, 2007). While it is beyond the scope of this chapter, a discussion of some of the pertinent aspects of the influence of culture and cultural explanations will help school psychologists in their cultural formulation, practice, and intervention and is described here.

Cultures have been conceptualised on a continuum with individualistic cultures at one end, such as many of those in the United States, Australia, Canada, and the United Kingdom, and collectivistic cultures at the other end, such as Asia, Africa, and Arab cultures (Curtis et al., 2005) and include many Aboriginal groups. The former emphasise individual achievement and autonomy as opposed to the other continuum end, which emphasise the collective good. Family, work, and social group goals are emphasised in collective cultures (Geva & Weiner, 2015). This has implications for psychologists and psychological practice particularly in mental health and learning. Students and families that more closely align with individualistic cultures are likely to be more comfortable with psychological interventions that promote individual accomplishments and independence, and in diagnosis that may attract services for their children. Collectivist or less acculturated families may prefer interventions that are aligned with traditional cultural values (Haboush, 2007). In Australia, for example, Aboriginal people's mental health is holistic and bound up in the social, emotional, spiritual, and cultural life of people and communities (Gee, Dudgeon, Schultz, Hart, & Kelly, 2014). The school psychologist needs to carefully consider the type of society the family has moved from and then into, for example, mismatches may occur and problems encountered when families move from a relationship-oriented, collectivistic society to an individualistic one. School psychologist intervention must be shaped by culturally valid understandings. With all families inquiring about the cultural attitudes to help seeking, the extent of involvement with the identified cultural group(s), the attitude towards their cultural identity, the importance of this in their interactions with others, and the importance of cultural connection will assist the school psychologist's understanding of the family's cultural identity and inform a culturally relevant intervention (Ecklund & Johnson, 2007). Sincere interest in the family's race, ethnicity, religion, and sexual orientation is essential and will contribute to affirming culture and rapport building (Ecklund & Johnson), establishing trust and obtaining valid information.

Cultures will vary in a number of significant ways. One of these pertains to family structure and gender roles, which may be very different from the dominant culture. There may be variations in the composition of family to include extended members who play a central role in the child's life and actively participate in child rearing. This necessitates the school psychologist learning about the relationships that are significant for the student. CaLD families may differ not only in their structure but also in hierarchies and patterns of authority and in their parenting practices and expectations. Some cultures are traditionally patriarchal with very traditional sex roles, and the father or an older brother the dominant authority with women's main roles being those of a wife and mother (Haboush, 2007).

Some parenting practices have strict codes of behaviour, varied gender responsibilities and behavioural expectations that differ from the wider community. Whilst some school psychologists may feel uncomfortable with patriarchal aspects it is critical to convey respect for the values held by all cultures (Haboush). A higher degree of formality than is usual in the dominant culture and determining whom to first address are for example recommended ways of conveying respect and building effective relationships (Ecklund & Johnson, 2007).

Gender roles vary cross-culturally and issues may arise as children, particularly adolescents, become acculturated to the dominant society and desire to behave in accordance with the receiving country norms, and seek greater autonomy and independence (Geva & Weiner, 2015). Due to their attendance at school and greater exposure to learning opportunities children often acculturate faster than their parents. School psychologists need to be aware that students may experience difficulties in shifting between two home and school cultures. Cultures will differ in their communication styles and degree of expressing emotion. Low-context cultures will state information explicitly, whilst in high-context cultures information may need to be inferred from the context and with the school psychologist attending to non-verbal cues, body language, and facial expressions (Romero & Branscome, 2014). Equally important is reciprocating culturally appropriate communication. The key message is that the school psychologist will be required to observe, adapt, and modify the approach taken to ensure it meets the cultural expectations and needs of the student and family. Ethnicities, cultures, and countries will vary in their attitudes towards learning and mental health problems. In some cultures these problems are stigmatised, often influenced by cultural and religious beliefs. Some cultures may attribute difficulties to spiritual causes, for example being cursed or punished for their sins (Curtis et al., 2005). With this in mind the school psychologist is encouraged to explore cultural explanations of the presenting concerns, employing good cross-cultural communication skills and if appropriate using a bicultural worker. Information needs to be gathered as to how the concerns are understood, any culture-specific attributions, the meaning and severity of these concerns, perceived causes, and appropriate interventions (Ecklund & Johnson). This will ensure the school psychologist has correctly understood the concerns and whether they are normal or otherwise within the family's cultural milieu.

Cultures may vary in their degree of expectation for academic achievement; however, most immigrant groups do value education for their children (Geva & Weiner, 2015). In some cultures there are gender differences regarding education for example across some Arab countries where education for boys is highly valued for ensuring economic stability for the family (Haboush, 2007). Refugee families similarly value education but past experiences of limited education, illiteracy, being unaware of the school expectation for parental involvement, cultural views that teachers are experts and highly respected, lack of knowledge, language and confidence, and resettlement stressors, are some of the factors contributing to limited parental engagement (Foundation House, 2011) and not to be misinterpreted as lack of interest, but rather a cultural explanation. School psychology is challenged by the diversity of school populations; however, awareness of the aforementioned will assist school psychologists understand the child and the family in their ecological system and adjust their practice to address cultural factors.

Acculturation

Many challenges are experienced by children and their families when they migrate or resettle in a new country and can be a complex process adjusting to a different culture, language, socioeconomic level, immigrant status, customs, and values (Romero & Branscome, 2014). This process of cultural adjustment is referred to as acculturation in the literature. A widely accepted theory of acculturation has been provided by Berry (2005) and acculturation defined as 'a dual process of cultural and psychological change that takes place as a result of contact between two or

more cultural groups and their individual members' (p. 298). As such acculturation influences attitudes, beliefs, values, affect and behaviours, and impacts functioning in society. Acculturation is not the same for all individuals (Berry, 2010), and acculturative stress, described later, can vary substantially across different CaLD groups and individuals (Ward, Bochner, & Furnham, 2001). Acculturation may also differ within families as some may be more acculturated than others, sometimes leading to conflict (Rivera, 2008).

Culturally and linguistically diverse children have the task of adapting to the culture of the new country in addition to the acquisition of a second language and navigating a new school system. Frequently, for example, refugee children may have encountered severe disruptions to their education or have had no previous schooling in any country, as a result of long periods of instability, geographical dislocation, and social structure breakdown (Victorian Foundation for Survivors of Torture, 2004). Such students may be challenged by sitting in a seat for an extended time period, have difficulty acclimating to routines, have problems in adjusting to different styles of teaching and discipline, and may lack an understanding of school expectations and norms (Brown, Miller, & Mitchell, 2006).

Brown (1987) has proposed that CaLD children undergo four successive stages of acculturation as they enter school and a new society. The first is the *honeymoon stage* where the student becomes aware of the future and moving to a new environment, and with it experiences feelings of excitement. The second stage of acculturation is the *observation stage* where the student is first exposed to the new culture. Mixed emotions may be experienced; problems encountered while the student investigates the new environment and awareness in differences between their home cultures and newly acquired one. The third stage termed the *increasing participation stage* sees the student either willingly or unwillingly become more active in the new environment. This can result in many positive outcomes for the student but alternatively may lead to feelings of isolation and resistance to adapting to the new environment. The final stage of the acculturation experience is termed *adaptation* and is the point where the sense of being foreign to the new culture no longer exists.

There can be both healthy and unhealthy adaptation outcomes and are described by Berry (2010) as assimilation, separation, marginalisation, or integration. Assimilation describes when individuals become immersed into the new culture; separation when individuals maintain their culture of origin identity and have limited society involvement; integration when the cultural integrity is maintained along with adopting sociocultural aspects of the new society, and, marginalisation happens when disassociation from both cultures occurs.

Acculturative stress or culture shock may occur as the individual, including CaLD children, experience stress, and anxiety as they are exposed to the new culture, and may impact educational achievement, mental health functioning, and successful acculturation (Romero & Branscome, 2014). Acculturative stress can be the result of a number of factors including confusion, identity crises, interpersonal, and intergenerational conflicts, such as when children embrace the values of the dominant culture which are in opposition to parents traditional ones, brought about by the challenges of negotiating one's original culture and the new culture (Berry, 2010). Romero and Branscome assert, as do we, that as cultural identity is closely tied to acculturation it is therefore important for the school psychologist to understand the CaLD child's cultural identity as he or she negotiates the balance between the culture of origin and the new culture.

Acculturative stress may impact self-esteem, socialisation, behaviour, language development, and learning (Poppitt & Frey, 2007). Some of the by-products of acculturation may look very similar to emotional or behavioural difficulties and include inattention, anxiety, poor self-concept, withdrawal, unresponsiveness, fatigue, resistance to change, and other stress-associated behaviours. Academic or behavioural difficulties resulting in referral for school-based evaluations and counselling, therefore, may be the result of acculturation stressors (Martines, 2008). Geva and Weiner (2014) have argued that not all members of a

cultural group hold similar attitudes, and children, youth, and families will differ in terms of their acculturation to the immigrant-receiving society and psychologists need to be aware of this.

School psychologists undertaking a multicultural assessment should assess degree of acculturation and acculturative stress (Rhodes, Ochoa, & Ortiz, 2005). Essentially such an assessment is that of assessing cultural norms and values. Determining the level of acculturation requires considering issues such as, but not limited to, language usage and preference, social affiliation, daily living habits, cultural traditions, communication style, cultural identity, perceived discrimination, family socialisation, and cultural values (Schon, Shaftel, & Markham, 2008). A number of measures are available to the school psychologist to assess acculturation level of a CaLD student. One instrument is the Acculturation Quick Screen (AQS; Collier, 1998), commonly used within school systems, can be used to monitor a student's acculturation progress over time, and can be used across all ethnicities. Acculturation and acculturative stress is therefore an essential component to evaluate and can provide an important perspective from which the school psychologist can develop plans for intervention and service delivery and address many of the issues the CaLD child is experiencing.

Working with Linguistic and Cultural Interpreters

The significance of utilising interpreters in school settings cannot be underestimated given the growing linguistic diversity across Australia and as schools increasingly encounter children and families of limited English proficiency. It is critical that school psychologists learn how to work effectively with interpreters. The use of interpreters is probably an unfamiliar practice for many school psychologists (Schon et al., 2008), and research has found that many have received such little training in the area (Ochoa, Riccio, Jimenez, Garcia de Alba, & Sines, 2004). The goal of utilising an interpreter is essentially and importantly to facilitate an accurate two-way dialogue between two parties.

CaLD students will be referred to school psychologists for a number of reasons including those learning English as a second or third language who may lag behind their native English peers in academic skills, those that display behavioural or social skills different to their peers (Blatchley & Lau, 2010) and those with complex histories due to environmental, learning, and mental health challenges (Clinton, 2014). Interviews with the families will be required. Best practice requires a comprehensive assessment which obtains, but is not limited to, information about the child's psychosocial, developmental, and attachment history; educational history; the history of any exposure to violence and traumatic events; medical and health history; current family functioning and acculturative stress; cultural identity; expectations; and beliefs. Critical information that is central to effective diagnoses and highly relevant to making informed judgements. Being a bilingual psychologist, in the student's language is preferable as it facilitates communication with the family; however, this is frequently not possible because of the myriad of languages spoken in schools including languages spoken by recently arrived refugees and immigrants, and not widely spoken by non-natives. School psychologists then need to work with an interpreter when language match is not possible. Interpreters who speak the same language as the family and have emigrated from the same country may have ideological, religious, social class, and political differences that may impact trust building and communication, and the school psychologist needs to be mindful of this (Geva & Weiner, 2015). Similarly it should not be assumed that because the family and the interpreter share the same language they are also ethnically and culturally 'matched' (Rhodes et al., 2005; Victorian Transcultural Psychiatry Unit, 2006).

Standard B.7 of the APS Code of Ethics (2007) specifically addresses the use of interpreters in psychological practice. It mandates a series of ethical responsibilities which include ensuring interpreters are competent to work as interpreters, ensuring the interpreter is not in a multiple relationship with the client that may

impair the interpreter's judgement, ensuring the interpreter keeps confidential the content and existence of the service, ensuring the interpreter is aware of any other relevant provisions of the Code, and obtaining client consent to use the selected interpreter. In Australia the assessment of language proficiency and the accreditation of interpreters are undertaken by the National Accreditation Authority for Translators and Interpreters (NAATI), a national standards body owned by the Commonwealth, State, and Northern Territory Governments. NAATI provides three levels of accreditation: Para-professional, Professional, and Conference interpreter. Within mental health settings Professional Interpreters are required; however, with some emerging community languages professional interpreters may not be available and in some circumstances para-professional interpreters may need to be utilised.

Given that limited training is available for school psychologists in the area of using an interpreter the following general principles and guidelines will assist the school psychologist in structuring their own practice when working with an interpreter. Research has demonstrated that family members do not make good interpreters, and negative outcomes have been identified when children are placed in an interpreting role for their parents. Role reversal may occur which may be problematic for the family, and children may become anxious or traumatised in having to discuss sensitive information or request the parents to disclose such information (David & Rhee, 1998; Tribe & Morrissey, 2004). Using a family member may be potentially problematic as they likely lack training in interpretation skills, may lack a thorough understanding of two cultures and be unable to act as cultural mediators, have difficulty in remaining neutral (Lee, Batal, Masselli, & Kutner, 2002), and may breach confidentiality (Blatchley & Lau, 2010). Other reasons may include inaccurate translation due to lack of knowledge of mental health terminology and the potential for information to be withheld or distorted when interpreted because of family relationships or the emotional/sensitive nature of the issues being discussed (APS, 2013).

A pre-session with the interpreter is recommended which explains the purpose of the interview, an overview of the session and key issues. Confidentiality, remaining neutral, exchange of relevant cultural and contextual information, clarification of terminology, management of any sensitive issues, and the expectation that everything said will be exchanged are key issues for discussion. It needs to be also confirmed that there is no conflict of interest. The pre-session is advantageous to establishing a relationship and deciding collaboratively how they will work together. School psychologists need to be mindful of the potential of secondary trauma to the interpreter who may have their own painful memories for example, interpreters from similar refugee backgrounds (Miller, Martell, Pazdirek, Caruth, & Lopez, 2005) or that there may be distressing content discussed.

During the interviews the school psychologist 'should be in the driver's seat' (Geva & Weiner, 2015) looking and speaking directly to the family. The interpreter should not become a more central figure than either the clinician or the family (Searight & Searight, 2009), and one way this is facilitated is by appropriate seating. Adequate time should be spent in establishing rapport with the family: respectful greetings, introductions, appropriate nonverbal behaviours and culturally appropriate communicating, and explaining confidentiality. The school psychologist's verbalisations should be succinct, technical language avoided, delivered in short sentences allowing translation to occur, and multiple questions avoided.

A post-session with the interpreter will allow for a discussion of the interview in relation to quality of the communication, culture, language, and functioning, family relations, other pertinent information and include a discussion of general impressions of the session and how the interpreter and school psychologist worked together. Any other issues relevant to the interview can be discussed. A debrief for the interpreter regarding his or her psychological well-being is considered good practice (APS, 2013).

Evaluation of Cultural Competency

Given the limitations and impediments to multicultural education and experiences with diverse individuals and situations in graduate training, school psychologists seeking to improve their cultural competence will necessarily have to engage in relatively independent, post-graduate efforts. With that in mind, the development of cultural competency must be accomplished within some sort of framework that provides a systematic guide in the acquisition and application of skills and knowledge. Random exploration of various issues, while not discouraged, is unlikely to provide sufficient feedback to assess the degree of success of one's efforts. Instead, it is recommended that school psychologists both follow a framework for the development of cultural competence, an example of which has been provided in this chapter, as well as a process for evaluating progress and growth in both skills and knowledge.

Because assessment is a necessary part of gauging relative development, frameworks for cultural competency frequently provide some type of checklist or other method for self-evaluation. For example, Pederson (2002) recommends assessment of one's own competence in the three major areas—awareness, knowledge, and skill. He describes ten discrete elements within each area against which an individual can compare their current abilities to develop an understanding of their own learning needs and is the type of framework that provides a viable first step in determining strengths, weaknesses, and the degree of development that may be necessary (Pederson, 2002). Similarly, Weigl's (2009) framework for cultural competency rests heavily on a structure of 'self-study' that places considerable emphasis on self-awareness and development of an in-depth understanding of oneself and one's own culture. In Halsell Miranda's (2014) framework, there is no specific self-assessment provided; however, detailed information is included that delineates cross-cultural strategies that school psychologists may employ at the individual/personal level when working directly with students and when working with the school or district. These strategies are specific enough to represent measurable objectives against which any school psychologist can evaluate their own competency.

Petty (2010) takes a slightly different approach to self-assessment by suggesting that progress in cultural competency be measured at the school or district level. By examining various outcomes for individuals from diverse backgrounds, for example educational placement, academic achievement, graduation and retention rates, and college admissions, it would be possible to determine whether culturally competent practice is in place across all levels of the system. This type of assessment, however, would likely be most appropriate for individuals who have sought and been successful in employing advanced competency in the service of advocacy and leadership at the building or organisational level. Assessment of individual acquisition of cultural competency is much more suited to professional growth at the initial stages of development.

The most common type of self-assessment involves use of questionnaires, of which there is no dearth in the literature and are far too numerous to review here. The problem, however, with these types of questionnaires is that they are largely independent of and do not always seek to operationalise an overarching framework for cultural competency. Thus, the areas of emphasis that are central to or most important in one questionnaire may not even exist in another. Lack of alignment between a framework and an attendant assessment method could prove extremely frustrating in efforts to evaluation one's own progress. Moreover, cultural competency questionnaires appear to have similar problems as seen in other socially desirable scales, in that individuals tend to overstate their own skills and knowledge (Canada et al., 2007; Juarez & Ortiz, 2011; Kemple et al., 2006).

To address the issues of both alignment with an established definition of cultural competence and the tendency to over-estimate one's skills and knowledge, the latter part of the following section provides a new checklist that facilitates an audit of one's progress via a structured self-reflective framework. The checklist is based on

the principles outlined in this chapter and is consistent with the definition that has been provided. In addition, it is designed specifically for school psychologists so that it has direct applicability to the elements of practice that are familiar and well understood for users of this volume. In this way, it provides an ideal mechanism for self-assessment.

Conclusions and Recommendations

Honigmann (1963) once stated, 'on the whole… we are inadequately prepared to deal with cultural diversity' (p. 1). This is, of course, quite true but it need not keep us from seeking to become better and at the very least, adequate. Thus, the purpose of this chapter is to provide school psychologists with an understanding of the importance of cultural competence and its crucial role in the provision of school psychology services to individuals from diverse populations, with attention to the unique aspects of diversity in Australia. The issues outlined and presented herein, apart from those related to diversity that are specific to what Australian school psychologists might encounter, represent collectively a set of standards that may be considered best practice. An attempt has been made to distill cultural competency into its essential components notably, self-awareness, knowledge of other cultures, interactions with diverse populations and situations, and advocacy/leadership activities, into a proposed framework that captures the elements in which there is general agreement. Critical aspects that denote culturally competent practice have been identified and various issues of particular interest and relevancy to school psychology in Australia have been discussed. In addition, a checklist for self-assessment has been proposed that may guide school psychologists in evaluating their progress towards higher and higher realms of competency. Whereas the entire volume in which this chapter resides is dedicated to school psychology practice, it should be clear at this point that culturally competent practice is something that affects and should be integrated into every other standard and recommendation offered in each of other chapters. In this way, school psychologists in Australia will find the assistance and guidance needed to position themselves well to deliver services to individuals and families from diverse populations that are not only defensible and ethical, but which are also appropriate and more likely to be successful.

It is possible that some who have read this far may well feel some degree of hopelessness when faced with the prospect of achieving cultural competency and all that it entails. No matter how important it may be, the motivation to commit, engage, and sustain effort despite high levels of anxiety, discomfort, and unfamiliarity may be difficult to find when considering what is most assuredly a daunting task. School psychologists need not despair, however, as there is no expectation that one proceeds rapidly or that failure is imminent unless one achieves a given level of expertise. Rather, an open mind and a willingness to push oneself beyond their typical comfort zone will be sufficient in most respects to accomplish that which is needed. From there, experience will be the driving force and if not shied away from, will prove its value in a very efficient manner. According to Ortiz and colleagues (2008),

> '…learning about another culture and developing the skills necessary to communicate effectively with its members is a process that begins with the very first family with whom school psychologists work and with deliberate effort improves steadily over time as cross-cultural interactions and experiences increase' (p. 18).

When one values diversity and welcomes experiences with it, invariably, the result is competency.

Reflective Exercise

1. This chapter has highlighted the importance of cultural competency for the discipline of school psychology in Australia. What are the critical elements that comprise the development of multicultural competence bearing in mind it is a lifelong endeavour?
2. Cultural competence is recognised in a range of psychology ethical codes and guidelines,

training and registration frameworks of the profession, and mental health policies for Australian psychologists. Reflect on your knowledge and awareness of these and how you incorporate them into your school psychology practice.

3. Aboriginal cultural competence has been identified as needing to be distinct from multicultural cultural competency. Consider the ways your practice can be inclusive, respectful of, and meet Aboriginal cultural needs. Identify the knowledge, skills, and abilities that will promote effective relationships with Indigenous students and their families.
4. Central to this chapter is the reflective framework: *How Culturally Competent Is My Practice?* which provides a vehicle for school psychologists to evaluate their progress in becoming culturally competent. Conduct an audit as to where you currently feel you are positioned and identify the areas of your practice that indicate required professional development. Determine how you will achieve this.

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Resources for Ethical School Psychological Practice in Australia

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Introduction

School psychologists often grapple with complex and perplexing ethical and legal professional practice situations. The variety of student issues that school psychologists are faced with (for example mental health problems, teen pregnancy, drug and alcohol issues, homelessness, severe behavioural issues, conflict with parents and/or teachers) requires careful decision-making around next steps for the student. These decisions may sometimes be in conflict with school, social or even legal expectations and may have no clear cut answer and even, no matter which way one turns, varying degrees of harm. The many challenges of providing psychotherapy to adolescents are described well by Koocher (2003):

> since most adolescents who enter psychotherapy have not yet attained the age of majority, reside in families where struggles for autonomy and control abound, attend schools fraught with peer and academic pressures, often arrive at the behest of community institutions (e.g., juvenile courts and school systems), and must generally take direction from adult authority figures, the therapist must attend to a dizzying array of intricacies (p. 1247).

Working in a school setting with children and adolescents adds another layer of 'dizzying' complexity, as this setting is compounded by the many stakeholders who also have an interest in the outcomes of the student-client, such as other students, teachers, parents, and school leadership (Knauss, 2001). Furthermore, school psychologists, especially in the Australian context, are not a homogenous group and have various contractual arrangements with schools, such as being school-employed, department employed, and servicing multiple schools, or working as a private practitioner in schools (Medicare funded or otherwise). These can result in varying dilemmas in practice based on the limits to what can be provided according to funding rules and/or the time and resources that are available, as well as the expectations of employers and other education staff.

In this chapter, we consider the policies, practices, and guidelines that can guide the school psychologist in relation to ethical decision-making and provide resources that can be used by school psychologists in the school environment. At its core, ethics is about what is right and

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wrong, what is moral or immoral, what ought to be done and what should be avoided, what actions should be performed, how the consequences and impact of actions should be taken into account, what sort of people we should be, and how we tell what is good from what is bad. Ethical practice involves understanding ones own and others' values and a high degree of reflection and consultation with resources and colleagues.

There are broadly three major traditions in ethics that build on elements of these various strands. In the virtue ethics tradition, the focus is on the ethics of character: What sort of people should we be? This tradition is evident in the classic works of Greek philosophy in Plato and Aristotle and later in Aquinas, but has also received great attention in the modern works of MacIntyre (1985), Hursthouse (1999), Foot (1978), and Nussbaum (1986). The two other major strands of ethics focus on the ethics of conduct, or what sort of actions should we take? The deontology tradition draws on the work of Kant (1964 [1785]) and gives a pre-eminent role to human rights, on inviolable moral laws, on our duty to follow those laws.

The final tradition is the consequentialism tradition. This tradition grew out of utilitarianism and focuses on the outcomes and consequences of actions. How are people affected by actions and what is the total positive and negative impact of those actions? The classical utilitarian position is often presented in terms of 'the greatest happiness for the greatest number'. The contrast between a deontology position and a utilitarianism position is sometimes presented as 'the Right' having priority over 'the Good' (or vice versa). Not surprisingly, much of modern ethical theory mixes elements of the two traditions together, and it is the mixture of a rights-based approach and a consequentialist approach that can be seen in the development of resources for school psychology.

Ethics and the School Environment

School psychology is going through a period of rapid change and ethical guidelines must keep up. The APS resource sheet on ethical and professional issues associated with privately contracted school psychological services, titled *External Mental Health Service Providers in Schools and the Effective Delivery of School Psychology Services* (Australian Psychological Society, 2015) is an an attempt at assisting schools and psychologists alike to deal with the growing phenomenon of private providers in schools and is an example of a new 'world' of school psychological practice that deviates from traditional school or department-employed models. It is a useful document that helps elaborate on the many issues involved with this type of work in schools. This method of school psychological service delivery presents varying ethical and professional considerations, and this is certainly true for the use of technology and online school psychological service delivery, which has already been trialled in some Australian schools (e.g., Glasheen & Campbell, 2009). The use of new technology and new models of practice can mean that problems arise that are otherwise not expected in traditional practice. For example, should or shouldn't the school psychologist be 'friends' with students on Facebook? Where in our ethical resources and Code is there information that helps us deal with issues around this and other modern ethical dilemmas?

Williams, Armistead, and Jacob (2008) delineate three broad types of ethical-legal challenges facing school psychologists: ethical dilemmas, ethical transgressions, and legal quandaries. The first of these challenges, ethical dilemmas, occurs when 'there are good but contradictory ethical reasons to take conflicting and incompatible courses of action' (Knauss, 2001, p. 231). For the most part, ethical dilemmas faced by school psychologists present complicated school-based situations to which a straight-forward, instantaneous solution is not always possible. Rather than being able to respond quickly, these types of dilemmas require problem solving from a variety of perspectives. In contrast, ethical transgressions are clear violations of ethical codes, and legal quandaries are actions that disregard laws intended to protect students and families within the school setting.

A recent study by Bell and McKenzie (2013) of 138 school psychologists, 107 parents, and 100 teachers from Melbourne, Australia, revealed that the potential for ethical dilemmas in schools

were commonplace. They utilised the School Psychologist Responsibility Measure (Thielking, 2006a, 2006b, 2006c), which was designed to assess principals' and teachers' beliefs about the school psychologist's role and how differences in beliefs may contribute to ethical dilemmas or challenges for the school psychologist (see Appendix 1). Bell and McKenzie (2013) found that there were a number of differences in self-reported attitudes of teachers and parents about the school psychologist's role that, if they were to eventuate in real-life, could cause an ethical dilemma for the school psychologist. These concerning attitudes (on the part of teachers and parents) relate to role boundary, confidentiality, informed consent and dual relationships. For example, parents and teachers were significantly more likely than school psychologists to believe that: school psychologists administered discipline to students, counselling is included in disciplinary procedures, school psychologists make counselling records available to teachers and school psychologists inform teachers about students' attitudes towards them that are discussed in a counselling context.

When school leadership and other teaching staff do not fully understand or respect the legal, professional, and ethical responsibilities of school psychologists, then they may inadvertently (or even overtly) put pressure on the school psychologist to behave in a manner that is deemed unethical. For example, it has been found that some school psychologists have felt pressure from administrators to 'fudge' IQ results so that a student receives funded services which would assist them to participate better in education (Thielking & Jimerson, 2006); a decision that may be difficult for school psychologists to make, namely, to maintain the integrity of the profession and psychological assessment versus open the door to much needed services for a student. In a recent study of close to 300 American school psychologists, a third reported that they had experienced pressure from administrators to behave unethically (such as withholding recommendations for support services or to agree to an inappropriate special education placement decision), and, somewhat unsurprisingly, this was associated with increased burnout, lower job satisfaction, and a desire to leave the school psychology profession (Boccio, Weisz, & Lefkowitz, 2016). It is no wonder that school psychologists espouse the importance and benefits of regular supervision (McMahon & Patton, 2000).

Ethical dilemmas involving confidentiality of information also feature strongly in school psychological practice. This not only relates to what should or should not be shared verbally with others but also record keeping and access to files. Because of this, Glosoff and Pate (2002) describe school psychology as a 'complex balancing act':

> 'Managing confidentiality when counseling minors, however, is more complex than when counseling adults. School counselors must balance their ethical and legal responsibilities to their clients, clients' parents, and school systems. This complex balancing act is one reason that the topic of maintaining the confidences of student clients is raised in virtually every discussion of ethical and legal issues in school counseling' (p. 20).

When confidentiality dilemmas occur and there is a need to disclose, but disclosing puts the therapeutic alliance at risk, working collaboratively (and creatively) with other school staff can sometimes be employed to ensure that the therapeutic alliance between client-student and psychologist remains. Grubbs, Muro, and Clements (2016) describe this 'vexing conundrum' (p. 20) in relation to school counsellors facing the dilemma of being legally required to disclose teenage pregnancy to parents at the risk of breaking the therapeutic trust of the student. They provide suggestions that involve working closely with the school nurse who takes on the role of communicating the pregnancy to the parents 'allowing the relationship between counselor and student to remain safe and confidential' (p. 20). This highlights the need for school psychologists to ensure that confidentiality between student and psychologist is something to be treated with the utmost care and that any rupture in the therapeutic relationship is likely to not only harm the immediate client but has the potential to spread rapidly through the student population. Research on student help seeking behaviour repeatedly shows that what students value the most in the helper is the ability to deliver a confidential service (e.g., Huggins et al., 2016). It has also been

found that parental perceived stigma associated with receiving a school psychological service, parents' perception that school psychology is ineffective and parents' concerns about lack of confidentiality is an additional barrier to students accessing school psychology care (Ohan, Seward, Stallman, Bayliss, & Sanders, 2015).

There exists a number of Codes and Guidelines that assist psychologists to problem solve what to do next when faced with an ethical dilemma. Most of these are developed by psychology-specific professional organisations. The appropriate Code to use would vary depending upon the context in which the dilemma is being considered. For example, in Australia, a school psychologist would review the Australian Psychological Society (2007), whereas in the United States, a psychologist would consider the American Psychological Association's (APA) Ethical Principles of Psychologists and Code of Conduct (APA, 2010). From an international perspective, school psychologists can also use the International School Psychology Association (ISPA) Code of Ethics (ISPA, 1990). The ISPA Code of Ethics outlines six Principles that represent aspirational behaviours of school psychologists, these being: Beneficence and Nonmaleficence, Competence, Fidelity and Responsibility, Integrity, Respect for People's Rights and Dignity, and Social Justice. However, they clearly state that school psychologist should always adopt the Code of Ethics of their own country of origin in the first instance. Another useful document for school psychologists to be aware of, especially in relation to student advocacys, is the United Nations Educational, Scientific, and Cultural Organization's (UNESCO) Convention on the Rights of the Child (UNESCO, 1985), of which Australia is a signatory.

The Importance of Ethical Understanding for Australian School Psychologists

The Department of Education in Western Australia is responsible for close to 800 schools and has a (school psychologist managed) statewide School Psychology Service. The School Psychology Service has published a Competency Framework for School Psychologists (Western Australian Department of Education, 2015). This framework outlines specific areas for ethical practice. Ethical behaviour is outlined as one of the 'Professional Attributes' that school psychologists need to have:

> School psychologists are committed to ethical behaviour and practice. They act with care, integrity and respect for the rights of others and aspire to the highest possible standards of conduct. School psychologists exercise due skill and diligence in applying their knowledge of human behaviour, and adhere to and are guided by relevant legislation, policies and codes. (WA Department of Education, p. 8)

'Ethical Understandings' are also highlighted as one of the five dimensions of Australian school psychologists' work that are central to professional effectiveness. The framework provides the following expected competency for school psychologists: 'In applying ethical understandings, school psychologists are actively involved in the development of the profession. They routinely evaluate their own knowledge, skills and practice and use this for the ongoing professional development of themselves and others' (WA Department of Education, p. 11). Ethical understanding is paramount to the work of Australian school psychologists. Without an understanding of ethical practice, a school psychologist may leave themselves and their clients open to risk of harm and adverse consequences resulting from less than optimal practice. Being able to clearly communicate one's ethical responsibilities to all stakeholders (school, parents, students) means that the pressure to behave in ways that are not aligned to one's professional expectations are kept to a minimum. School psychologists who have a clear understanding of their own ethical and professional boundaries are less likely to find themselves in situations that put them, the profession and their clients at risk.

The following section will provide school psychologist readers with a brief summary of a broad selection of national and international ethical resources that may assist in providing advice and guidance for ethical psychological practice in schools.

The Australian Psychological Society (APS) Code of Ethics and Useful Ethical Guidelines

The APS publications outlined below are available to members only via the APS website, unless otherwise stated as being publically available.

The APS Code of Ethics (2007)

The APS Code of Ethics (2007) articulates and promotes ethical principles, and sets forth specific standards to guide both psychologists and members of the public to a clear understanding and expectation of what is considered ethical professional conduct by psychologists.

The Code is built upon three general principles:

A. Respect for the rights and dignity of people and peoples
B. Propriety (which includes beneficence, nonmaleficence and competence)
C. Integrity

While all aspects of the Code are applicable to the practice of school psychologists, within the Code, the APS provides specific areas of ethical standards that may warrant special consideration. These include: professional communication (Ethical Standard A.2.1), informed consent (Ethical Standard A.3), privacy (Ethical Standard A.4), and confidentiality (Ethical Standard A.5). With regards to General Principle B: Propriety, competency in the delivery of psychological services is paramount (Ethical Standard B.1):

> Psychologists practise within the limits of their competence and know and understand the legal, professional, ethical and, where applicable, organisational rules that regulate the psychological services they provide. They undertake continuing professional development and take steps to ensure that they remain competent to practice (p. 18).

Propriety also addresses the use of interpreters (Ethical Standard B.7), which given the potential diversity of students in a school setting in Australia is important to consider. There are also a number of Principles (Ethical Standard B.13) articulated to guide the practice of psychological assessments, which warrant additional attention.

The APS Code is available from: https://www.psychology.org.au/Assets/Files/APS-Code-of-Ethics.pdf

Ethical Guidelines for Working with Young People (APS, 2016)

Specific guidelines are provided by the APS for working with children or adolescents under the age of 18 ('young person[s]') because of what they state are the special needs and vulnerabilities associated with young persons (2.1). This Guideline emphasises the need for psychologists to always work with the best interest of the child in mind. It also provides direction on how to work effectively with parents, which they name the 'client-parent', and who engages a psychologist to provide psychological services for the young person. Importantly, at the outset of treatment, the psychologists must discuss and clarify issues of consent, confidentiality, and disclosure with both the young person and the client-parent (3.1).

School psychologists must be aware of a young person's capacity to give informed consent and in cases where this is unlikely; the psychologist must obtain consent from people with legal authority to act on behalf of the client (4.2, 4.3). In terms of confidentiality, the APS emphasises that the practitioner explains the legal and other limits to confidentiality (e.g., legal requirements to report child abuse and neglect) to both the young person and the client parent prior to consent to treatment (5.1). Confidentiality applies to any disclosure of information, and overall, any disclosure of a young person's infor-

mation must be done in accordance with the young person's best interest (5.1, 5.2).

It is also the responsibility of the psychologist to clearly identify the purpose and the nature of psychological services being delivered to the young person (6.1). The APS states that if the nature of services change, the practitioner must explicitly explain such changes to both the young person and the parent, and informed consent must be obtained again (6.1). In terms of responsible record keeping, the APS states that it is critical to keep young person's records separate from other records of family sessions or meetings with one or both of the young person's parents (7.1). If the psychologist wishes to conduct research with young people, the psychologist must follow appropriate procedures for obtaining parent consent (9.1). In terms of ethical research guidelines, the APS refers psychologists to The National Health and Medical Research Council (NHMRC) National Statement on Ethical Conduct in Human Research (Second consultation) (2006) and the Human Research Ethics Handbook.

Ethical Guidelines for Psychological Assessment and the Use of Psychological Tests (APS, 2009)

These guidelines strongly endorse the general principle of respect for the rights and dignity of people and peoples that is within the APS Code of Ethics (2007) in that psychological assessment procedures must encompass multiple sources of data and the client's language and cultural background must be considered when selecting assessment methods, interpreting results, and communicating back to their clients. It provides essential advice and draws attention to the benefits or limitations of psychological tests, such as school psychologists should aim to use tests which are characterised by standardised administration and scoring, use a manual, and provide population norms to assist interpretation. However, school psychologists must also be aware of the limitations of computer-generated reports as well as exercise caution in their inferences from psychological assessments. Guidelines not only are provided for utilising online tests but also include information on the associated issues, risks, and limitations.

Guidelines on Reporting Abuse and Neglect, and Criminal Activity (APS, 2016)

This Guideline covers information on how to ethically report incidences of abuse, neglect, and criminal activity. School psychologists should be aware of the most recent legislation regarding child abuse and neglect in their relevant state or territory, which can be found on the Australasian Legal Information Institute website (www.austlii.edu.au).

The Framework for Effective Delivery of School Psychology Services: A Practice Guide for Psychologists and School Leaders (September, 2016)

The Framework for Effective Delivery of School Psychology Services: A Practice Guide for Psychologists and School Leaders (APS, 2016) provides detailed information on all aspects of school psychological practice in accordance with the APS Code of Ethics (2007). Divided into seven sections, it covers: (a) School psychology, a guide for school leadership ; (b) Professional obligations in the workplace; (c) A model for effective practice; (d) Professional practice: a guide for psychologists in schools; (e) Ethical obligations; (f) Practice issues for psychologists in schools; and (g) Requirements for effective professional practice in schools. It also includes a number of appendices covering frequently asked questions related to school psychological practice, complex dilemmas for psychologists providing services to schools, complex dilemmas for psychologists providing assessments in schools, and a section on professional development requirements of school psychologists,. The sec-

tion on ethical obligations covers confidentiality and its limits, access to psychological files, the two-part client record, psychologist versus school obligations, who is the client issues, working in multidisciplinary teams, dual service provision and client access to information. It is certainly a must-read document for Australian school psychologists.

The Framework for Effective Delivery of School Psychology Services: a Practice Guide for Psychologist and School Leaders can be found at: http://www.psychology.org.au/Assets/Files/School-psych-services.pdf

Practice Guide for the Assessment of School-Age Students in Educational Contexts (APS, 2014c)

This practice guide provides seven general principles for school psychologists to assist in the ethical assessment of school-age children. These principles incorporate such things as: using a wide range of processes for gathering information about students, clarifying the purpose of the assessment and developing an appropriate assessment plan, and seeking input from a multidisciplinary team in the process of conducting a comprehensive assessment. When assessing students with special needs school psychologists must consider suitable testing accommodations and make clear the limitations of the testing procedures used. It is important that school psychologists create high-quality individualised reports that are written with clear language and include recommendations that specifically address the referral question.

School Psychological Services Policy: Managing Communication and Confidentiality Between Psychologists, the Principal, Other Professionals and Teaching Staff (APS, 2015)

As an appendix to the APS guidelines, the *Managing Student Confidentiality in the School Setting: Guidance for Principals and School Psychologists* (2014b), the services policy document clarifies the roles and responsibilities of the school psychologist and all other persons involved in the course of providing psychological services to a child in relation to the access to and the sharing of any collected and/or recorded information about the child.

Other Useful International Ethics Resources for School Psychologists

American Psychological Association (APA) Ethical Principles of Psychologists and Code of Conduct

It is useful to be cognisant of the APA Ethical Principles of Psychologists and Code of Conduct (2010, hereinafter referred to as the Ethics Code) as not only does the APA state that this is relevant to the practice of school psychology, but also it is the foundation document for the National Association of School Psychologists (NASP) Principles for Professional Ethics (2010). Any membership within APA commits members to abide by the Ethics Code. The Ethics Code is guided by several General Principles, including Beneficence and Nonmaleficence, Fidelity and Responsibility, Integrity, Justice, and Respect for People's Rights and Dignity. Broadly, these principles state that psychologists strive to benefit those with whom they work; establish relationships centered on trust, accuracy, honesty, and truthfulness of science; recognise their boundaries of competence and limitations of expertise; and respect cultural, individual, and role differences.

Among the ten Standards put forth in the Ethics Code (APA, 2010), Assessment (Standard 9) is particularly relevant to the role of the school psychologist. When drawing conclusions and recommendations from assessments, psychologists must substantiate their findings with an adequate examination of the relevant psychological characteristics (Standard 9.01). In terms of the use of assessment measures, psychologists must utilise instruments appropriately in light of the available research and evidence (Standard

9.02). In addition, psychologists must select valid and reliable instruments that are appropriate for the subjects being tested, and they must also consider methods appropriate for the subject's language preference and competence (Standard 9.02). In conducting assessments, psychologists must be qualified with appropriate training to administer up-to-date tests (Standard 9.07, Standard 9.08). The selection of assessment instruments that are valid and reliable for the Australian population is highlighted throughout the Handbook of Australian School Psychology (Thielking & Terjesen, 2016), and we believe it is important for the role of the school psychologist in assessment, data-based decision-making, and evaluation of the effectiveness of interventions.

The APA Ethical Principles of Psychologists and Code of Conduct (2010) are available from: http://www.apa.org/ethics/code/principles.pdf

Principles for Professional Ethics (NASP, 2010)

The Principles for Professional Ethics (PPE) are designed 'to address the unique circumstances associated with providing school psychological services' (p. 2). The PPE comprises four broad themes: (1) Respecting the dignity and rights of all persons; (2) professional competence and responsibility; (3) honesty and integrity in professional relationships; and (4) responsibility to schools, families, communities, the profession, and society. These themes are populated by 17 ethical principles and multiple specific standards of conduct.

The PPE (NASP, 2010) strongly promotes 'Responsible Assessment and Intervention Practices' (Principle II.3) and states that school psychologists must utilise assessment techniques that are research-based, reliable, and valid (Standard II.3.2). In the assessment process, school psychologists must utilise different types of information from different sources which adequately assess all areas related to the suspected disability (Standard II.3.3, Standard II.3.4) emphasising the importance of multiple sources of data from multiple informants. From an ecological perspective, II.3.1 states 'prior to consideration of a disability label or category, the effects of current behaviour management and/or instructional practices on the student's school performance are considered' (Standard II.3.1). In their interpretation of test results, school psychologists must present findings to the recipient in clear and understandable terms (Standard II.3.8). Further, NASP recommends that school psychologists discuss recommendations and plans with the student whom was tested; as appropriate, school psychologists should invite students to participate in selecting and planning interventions (Standard II.3.11).

National Association of School Psychologists (NASP) Principles for Professional Ethics can be found at: https://www.nasponline.org/Documents/Standards%20and%20Certification/Standards/1_%20Ethical%20Principles.pdf

International Test Commission (ITC) Guidelines on Test Use (2001)

With psychological assessment being a major professional practice of school psychologists activities in Australia, Part 1 of the guidelines put forth by the ITC highlights important considerations as to the responsibility for ethical test use. Test administrators must be competent insofar as working within both limits of scientific principle and limits of one's own personal competence (Standard 1.2). Ethically, test users should have an understanding of relevant professional and ethical issues relating to the tests they use as well ensure that all supervisees or employees also follow relevant standards (Standard 1.1). The ITC emphasises that test users are responsible for their choice of tests as well as for the interpretations and recommendations subsequently issued (Standard 1.3). Test users must also ensure that test materials are kept securely (e.g., secure storage and control of access to materials, respect copyright laws) and that test results are treated confidentially (e.g., obtain consent before release of results, protect data; Standard 1.4, Standard 1.5).

Part 2 of the Guidelines on Test Use (ITC, 2001) states that test users must consider the client's needs and reason for referral when evaluating the utility of testing in an assessment situation. Test users must then select appropriate tests by considering adequate technical documentation, validity, reliability, and acceptability (e.g., perceived fairness, relevance; Standard 2.2). The ITC requires that test users give due consideration to issues of fairness when tests are used with individuals from different groups, when testing in more than one language, and when testing with persons with disabilities (Standard 2.3). Test users must also make necessary preparations for the testing session (e.g., gain explicit consent of test takers, explain rights and responsibilities of test takers) as well as administer tests properly (e.g., establish rapport with test takers, remove potential distractions; Standard 2.4, Standard 2.5). In scoring and analysing results, test users must follow standardised procedures and check their scoring for accuracy (Standard 2.6). Interpretations of results must use appropriate norm or comparison groups; both over-generalising and creating negative social stereotyping of certain groups should be avoided (Standard 2.7). Interpretations and subsequent communication of test results must be clear and accurate (e.g., avoid technical jargon outside understanding of recipient, write clear summary with relevant recommendations; Standard 2.8). Finally, the ITC recommends that assessors should conduct ongoing reviews of the appropriateness of tests and their uses by monitoring changes over time in populations being tested; if changes are made, test users should be aware of the potential need to re-evaluate the use of a test (Standard 2.9).

International Test Commission (ITC) Guidelines on Test Use can be found at: https://www.intestcom.org/files/guideline_test_use.pdf

Professional Practice Guidelines (British Psychological Society, 2002)

The Professional Practice Guidelines of the British Psychological Society (2002) reinforce many of the concepts and principles articulated through other professional documents but highlight some specific areas to consider when working with children and families in schools. The importance of competence in service provision is highlighted. Usefully, the Guidelines offer an appendix that focuses on a framework for psychological assessment and intervention to guide practice and suggest that educational psychologists be cognisant of the potential impact of their own belief systems and attitudes on assessment practice.

The Professional Practice Guidelines Division of Educational and Child Psychology (British Psychological Society, 2002) can be found at: http://www.bps.org.uk/sites/default/files/documents/professional_practice_guidelines_-_division_of_educational_and_child_psychology.pdf

School Psychologist Ethical Decision-Making Models

There exists a variety of ethical decision-making models for psychologists to use when dealing with ethical dilemmas. For example, the Canadian Code of Ethics for Psychologists (Canadian Psychological Association, 2000) lists, in rank order of importance, four overriding principles (Respect for the Dignity of Persons, Responsible Caring, Integrity in Relationships, and Responsibility to Society); they state that where possible, when these principles are in conflict, they should all be considered. However, the ordering of these principles should be the guiding principle in relation to any resolution.

The APS also presents an ethical decision-making model for psychologists (in general) and states that psychologists' decisions should be guided by the three general principles of the APS Code of Ethics (2007): Respect for the Rights and Dignity of all People and Peoples, Propriety, and Integrity. The APS also recommends that psychologists engage in ongoing training to develop ethical reflection skills, foster a culture of ethical sensitivity, and use a model to assist with ethical decision-making. As such, Shaw, Bancroft, Metzer, and Symons (2013) from the Ethical Decision-Making Project Team at the APS put forth an ethical decision-making model, which

has elements of the Koocher & Keith-Spiegel (2008) model, but that also invites the psychologist to reflect deeply on situations before they occur (therefore preventative) and to answer a comprehensive series of questions that help untangle professional responsibility in any given dilemma. The 'APS Ethical Decision-Making Model' is an important and useful resource for Australian psychologists, including school psychologists and is only available to APS members.

Williams et al. (2008) also propose a school psychologist specific ethical and legal decision-making model, and this is presented in Table 1.

This model allows school psychologists to problem solve challenging dilemmas from a critical-evaluative perspective and is based on the earlier work of Koocher and Keith-Spiegel (1998). Implicit in the use of this model is a step-by-step process that includes the following: a description of the problem; definition of the potential ethical-legal issues; consultation with guidelines, colleagues, and supervisors; evaluation of the welfare of all parties; consideration of possible alternative solutions; and finally, arriving at a decision. It is useful for school psychologists to have this model and a copy of their Code of Ethics and Guidelines at close hand. These 'ethics resources' are an important addition to the tool kit that is required for working confidently as a psychologist in school settings and provide the basis for professional practice in school, backed up by ethical and legal responsibilities.

Summary

This chapter provided a review of the ethical principles and resources available for school psychological practice from both an Australian and international perspective. The profession of school psychology is constantly evolving, and it is important that school psychologists remain vigilant in their knowledge of any changes in the ethical standards of the profession to ensure that they continue to engage in ethical school psychological practice. Engaging in ongoing professional development to increase familiarity with legal and ethical standards is warranted and will be helpful in developing an 'ethical mindset' among school psychologists. That is, we think it is important for school psychologists to regularly consider the role that ethics may play in their decision-making along with any personal attributes and school-based factors that may impact upon this as well.

Test Yourself Quiz

1. What are some of the conflictual relationships you may encounter when working in the schools?
2. How would you resolve a conflict between ethics and the law?
3. What are some of the ethical dilemmas that you have faced in your school-based practice? What ethical principles helped guide your decision-making?
4. How would you handle pressure to act in an unethical manner from an administrator?
5. What are some strategies you may use to effectively communicate ethical concerns that you may have about the behaviour of a colleague?

Appendix 1: School Psychologist Responsibilities Measure (SP-RM)

This measure may be given to school psychologists to consider what attitudes they bring to their own school psychological practice. However, it can also be used as a useful measure of identifying significant within-school incongruence in attitudes about the school psychologist's role, when given to school psychologists, teachers, parents, and school leadership, where differences in attitudes may lead to ethical dilemmas for the school psychologist. Items in bold represent attitudes, that may in certain circumstances result in ethical dilemmas relating to role boundaries, dual relationships, confidentiality and informed consent particularly if the student has not given consent or these are strong opinions of stakeholders or the psychologist regarding the role of school psychologists.

Please indicate your level of agreement with each of the following items (1 = strongly disagree; 2 = disagree; 3 = undecided; 4 = agree; 5 = strongly agree)

	1	2	3	4	5
1. **School psychologists should assist classroom teachers in handling discipline**					
2. **School psychologists should administer discipline to students if it is necessary**					
3. School psychologists should conduct research on issues that are important to their school					
4. School psychologists should be up to date on current research that relates to the needs and issues of their school					
5. School psychologists should conduct intellectual or IQ assessments of certain students					
6. School psychologists should conduct psychological assessments of students to test for certain disorders					
7. School psychologists should provide counselling and therapy to students					
8. The school psychologist is the main person in the school that students should see if they need to talk to an adult about their personal problems					
9. School psychologists should provide career guidance to students					
10. **School psychologists should provide therapy and support to teachers for their own personal problems**					
11. **School psychologists should provide therapy to the families of students**					
12. School psychologists should identify student issues and organise group activities appropriate to those issues					
13. The school psychologist should provide workshops to teachers about certain issues concerning student welfare					
14. Teachers should be able to gain information from the school psychologist about how to work effectively with students' varying social, emotional and learning issues					
15. The school psychologist should be a referral agent within the school when a student's problem is beyond the teacher's training or scope					
16. **School psychologists should let the referring teacher know how the student is progressing in counselling**					
17. **Counselling records should be made available to teachers who spend a lot of time teaching the student/s**					
18. **School psychologists should let the teacher know about the attitudes students have towards that teacher**					
19. **Psychological reports of students, such as IQ assessments, should be made available to the main teachers of that student**					
20. **I believe school psychologists should also teach some subjects as well as** counsel students					
21. **It is acceptable for the school psychologist to charge a fee to teachers that want to see them for counselling outside of working hours**					
22. **It is important for certain teachers to know which students are receiving counselling from the school psychologist**					
23. **Parents should be informed if their primary-school-aged child is seeing the school psychologist**					
24. **Parents should be informed if their secondary-school-aged child is seeing the school psychologist**					
25. **Because of the nature of some students' problems, they should have to see the school psychologist even if they do not want to**					
26. **Seeing the school psychologist for a certain number of sessions could be included in disciplinary procedures for some students**					
27. **I believe that in some special cases, it is acceptable for the school psychologist to slightly 'fudge' IQ test results if it means that the student will receive additional funding for educational support**					
28. **School psychologists should refrain from giving certain information or advice to secondary students that is against the values or beliefs of the school**					
29. **School psychologists should refrain from giving certain information or advice to secondary students that is against the values or beliefs of the students' parents**					
30. **When the school psychologist is seeing a student who is behaving in a way that significantly opposes the student's parent's beliefs or values, the parents should be informed**					

Source: Thielking, M. (2006). *An investigation of attitudes towards the practice of school-based psychological services.* Unpublished manuscript, Melbourne, VIC, Australia: School of Life and Social Sciences, Swinburne University of Technology

Appendix 2: School Psychologist Ethical Dilemmas Scale (SP-EDS)

Cronbach's Alpha Coefficient = .77

This scale asks school psychologists to consider how often they experience ethical dilemmas involving confidentiality, boundary issues, who is the client, informed consent, competence issues and dual relationships.

Please indicate how often the following ethical dilemmas occur in your role as a school psychologist (1 = never; 2 = almost never; 3 = sometimes; 4 = fairly often; 5 = very often)

	1	2	3	4	5
1. Ethical dilemmas that highlight 'confidentiality' issues					
For example, a conflict between your professional responsibility to keep information confidential and either the request of that information from other people or your need to tell others about the information that you have obtained					
2. Ethical dilemmas that highlight 'boundary' issues					
For example, the school or client asks you to perform an activity that is outside of your usual role as a school psychologist					
3. Ethical dilemmas that highlight 'who is the client?' issues					
For example, some confusion is apparent between who you are primarily responsible towards, the student, teacher, principal or parent?					
4. Ethical dilemmas that highlight 'informed consent' issues					
For example, a conflict between (a) respecting student's competence and right to make choices in regards to entering counselling and (b) the rights of others, i.e., parents, as well as the question of the student's age and their maturity and how this affects their ability to make informed choices					
5. Ethical dilemmas that highlight 'competence' issues					
For example, when the demands of your role exceeds your ability, training, qualifications or experience to provide the most suitable advice or treatment					
6. Ethical dilemmas that highlight 'dual relationship' issues					
For example, when you share more than one relationship with your client(s), an example may be that you both counsel and teach a student					

Source: Thielking, M. (2006). *An investigation of attitudes towards the practice of school-based psychological services.* Unpublished manuscript, Melbourne, VIC, Australia: School of Life and Social Sciences, Swinburne University of Technology

Table 1 School psychologist ethical and legal decision-making model

Describe the problem situation
Focus on available information and attempt to gather and objectively state the issues or controversies. Breaking down complex, sometimes emotionally charged situations into clear, behavioral statements is helpful
Define the potential ethical-legal issues involved
Enumerate the ethical and legal issues in question. Again, state these as clearly and accurately as possible, without bias or exaggeration
Consult available ethical-legal guidelines
Research the issues in question using reference sources, e.g., NASP's *Principles for Professional Ethics*, Individual with Disabilities Education Improvement Act of 2004 (IDEA), state guidelines governing special education, textbooks on ethics and legal issues in school psychology (e.g., Jacob, Decker and Hartshorne's *Ethics and Law for School Psychologists* [6th ed.], NASP's *Best Practices in School Psychology V*, job descriptions, school board policies, and other appropriate sources)
Consult with supervisors and colleagues
Talk with your supervisor and trusted colleagues who are familiar with the legal and ethical guidelines that apply to school psychology. On a need-to-know basis, share information specifically about the issues you have identified. Brainstorm possible alternatives and consequences and seek input from those whose opinions you value
Evaluate the rights, responsibilities, and welfare of all affected parties
Look at the big picture rather than focusing on the isolated details of the controversy. Consider the implications for students, families, teachers, administrators, other school personnel, and yourself. How will the various alternative courses of action affect each party involved? Remember two basic assumptions underlying NASP's *Principles for Professional Ethics*: (a) school psychologists act as advocates for their student-clients and (b) at the very least, school psychologists will do no harm
Consider alternative solutions and consequences of making each decision
Carefully evaluate in a step-by-step manner how each alternative solution will impact the involved parties. Who and how will they be affected? What are the positive and negative outcomes of each alternative? Weigh the pros and cons. Step back and carefully consider the information you have gathered
Make the decision and take responsibility for it
Once all the steps are completed, make a decision that is consistent with ethical and legal guidelines and one that you feel confident is the best choice. Take responsibility for following through on that decision, attend to the details, and attempt to bring closure to the scenario

Used with permission from Williams et al. (2008). *Note*: Adapted from Koocher and Keith-Spiegel (1998)

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Promoting Success of School Psychology: Collaborating with Others

Peter Segal, Tina Fersterer, Sue Jennifer Sodeman, and Katherine Elizabeth Prescott

This chapter discusses collaboration as a service delivery model and the role of the school psychologist within this model. Collaboration, as a service delivery model, is not limited to school psychology. Collaboration is a model that is promoted throughout the field of education, by many different specialists aside from school psychologists (Calvery & Hyun, 2013; Tollerfield, 2003). Collaboration is, by its nature, an interdisciplinary model and most school psychologists experience it within the applied setting where they are working alongside professionals from many other disciplines. That said, this chapter is written by experienced practitioners who understand the nuances, and benefits, of collaboration with the goal of helping fellow practitioners understand what collaboration is, when to collaborate, identify the skills needed and recognise challenges presented by the model.

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Collaboration in Schools

Collaboration is a core component of school psychology service delivery (National Association of School Psychologists, 2010). Curtis and Stollar (2002) describe collaboration as an endeavour that involves at least two people working together and sharing expertise to achieve a mutually desired goal. Collaboration can be a direct or indirect service delivery model. It is considered to be indirect when the school-based professional does not directly work with the individual, group or system that is the target of intervention but rather works with others to collaboratively develop strategies to impact change. There are situations, however, when the client is also a direct participant in the process. Collaboration, as a model, can exist within different environments of varying size (e.g. classroom, school building, school region). The focus of consultation may be smaller in scale and may involve focusing on a single student with as few as two individual collaborators working to bring about adaptive outcomes for that student. Larger scales may involve whole systems as the "client" and involve multiple organisations as collaborators. The essence of collaboration consists of shared expertise, shared decision-making and shared ownership (Dougherty, 2009). These core facets remain as constants regardless of the size of scale. Although collaboration is not seen as a viable service delivery model for all situations, it offers several benefits when used in the right situation.

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Why Should School Psychologists Use Collaboration?

There are many professional responsibilities of the school psychologist and the practices that they deliver in schools. School psychologists provide a growing number of direct and indirect services to students, teachers, families, groups and systems (Australian Psychological Society, 2013). There are a few recognised core areas of competency among the many services school psychologists provide. Two of these cornerstones are consultation (Australian Psychological Society, 2013) and collaboration (National Association of School Psychologists, 2010). Consultation and collaboration are recognised as integral parts of school psychological services in many national models. In the United States, the National Association of School Psychologists views consultation and collaboration as core practices that are embedded in all aspects of services delivery (National Association of School Psychologists, 2010). In Australia, government and education departments include collaboration as a keystone to service delivery (Government of South Australia & Department for Education and Child Development, 2014a). There are many similarities between consultation and collaboration. For example, both are cooperative in nature and both have a client as a beneficiary. It is important to note the two are not the same. In consultation, the consultant (the school psychologist) shares their expertise with the consultee, who in turn incorporates this into their service to a client. For example, a teacher may use a school psychologist as a consultant to improve the behaviour of a student. In this arrangement, the consultant (school psychologist) shares their expertise with the consultee (teacher) who then incorporates this into their own professional knowledge to improve the outcome for the client (student). It is important to note, that in this model, it is the teacher who is still responsible for the student's progress. Also, as a result of this consultation, both the teacher and the student benefit (directly and indirectly) from the expertise of the consultant. In collaboration, however, there is an expectation that all collaborators have expertise they bring to bear (Dougherty, 2009). An example of collaboration might be in response to a student who is struggling behaviourally and academically in school and at risk for dropping out. Two collaborators (school psychologist and teacher) collaborate to develop an integrated plan of behaviour management and specialised pedagogy (based on a school psychologist's assessment) to improve the outcome for the client (student). In this example, both collaborators share the responsibility for the student's progress. Additionally, both collaborators have added to their respective knowledge bases from the contributions of the other and from the synergistic product of the collaboration.

At first glance, this difference may seem mostly aesthetic; however, this structural difference is the backbone to many of the benefits that collaboration provides. Fundamentally, school psychologists are agents of change. As a profession, school psychologists strive to improve the quality of life for those they serve, students being among them. With respect to students, the same can be said of educators and families. School psychologists are considered to have expertise in many areas; psychological assessment, learning and cognition, human behaviour and child development being among them (Australian Psychological Society, 2013). However, when viewed through a wider lens, encompassing the multiple facets of education, school psychologists are not the only experts. For example, related service providers, such as speech therapists, physical therapists and occupational therapists, are considered experts in their respective fields, which can have a positive impact on the collaboration and subsequently the student functioning. Teachers are considered experts in pedagogy from a general perspective and often have extensive and valuable knowledge about individual children and their families (Welch, 2000). With respect to individual children, it is difficult to supplant parents as experts in knowing their children. Also of note, as they mature, students themselves become very valuable as contributors of their own learning styles, metacognitive strategies and inventory of successful/unsuccessful interventions. These groups are connected not only by their viability as collaborators but also by their simultaneous role as stakeholders. All of these groups can benefit in

their own roles from collaboration (Dougherty, 2009). This is a powerful but understated characteristic of collaboration. As collaborators, all participants share in contributing their "expertise" towards a solution that they all, as stakeholders, are vested in. Collaboration enables a more holistic perspective, and a more integrated and targeted solution. This creates a strong sense of commitment through mutual ownership and voice.

Aside from individual students, there are other "clients" that school psychologists impact upon in the course of their professional practice. This list includes other professionals, programmes and institutions. Within these applications, the fundamental structure and advantages rooted in collaboration remain unchanged. Multidisciplinary teams of professionals, co-curricular support programmes and nonschool-based support entities (e.g. community agencies, mental health clinics) are becoming fixed features of the educational landscape. Many educational models, from local to national, have grown to include private and public supports to improve the resources available to students and their families (Government of South Australia & Department for Education and Child Development, 2014a; United States Department of Education, 2014). Bridled to this commitment is the inescapable economics of available resources. The finite amount of available financial resources invariably imposes restraints on available services within the schools. This, in turn, challenges all concerned entities to meet the demands they are charged with using only the resources they have at their disposal. To accomplish this, effective systems and models, on all scales from nationwide down to an individual building, must be established to address the needs of the student and schools within the financial constraints imposed upon them. In this context, collaboration is seen to be a highly efficient model of service delivery (Dougherty, 2009). Additionally, in maintaining the fundamental structure of shared contribution and ownership, collaboration as a service delivery model can prove very useful in addressing the high degree of complexity inherent in multidisciplinary, multi-institutional support models (National Association of School Psychologists, 2010).

The benefits of collaboration are recognised by the many entities outside of psychology. For example government policy frameworks and guidelines may operationalise strategic directions with an expectation that services will work collaboratively in all stages of service provision including identification of needs, development and delivery. The South Australian public sector Code of Ethics (Government of South Australia. Commissioner for Public Sector Employment, 2015) is supported by a Values and Behaviours Framework (Government of South Australia & Commissioner for Public Sector Employment, 2015) that describes the organisational practices and employee behaviours for eight values. One of those values is Collaboration and Engagement. All state government employees, including school psychologists, are bound by this Code of Ethics.

Another example of systemic expectation for collaboration is Education and Child Development Local Partnerships which identifies collaborative practice and collective responsibility as strategies to improve outcomes for all children and young people (Government of South Australia & Department for Education and Child Development, 2014b). This occurs through groups of preschools/kindergartens and schools partnering with co-located multidisciplinary support services teams, which include psychology, speech pathology, social work and educators with specialised roles in behaviour and disability. These services work with children, students, families, staff and other stakeholders in kindergarten/preschools and schools, within policy and procedural frameworks which operationalise the expectation of collaboration. The school psychologist provides both direct and indirect services as a member of a range of collaborative teams to address the developmental and learning needs for individuals and groups.

This principle of collaboration also operates at the local level in Children's Centres (Government of South Australia, 2015), which have been established as community hubs where co-location and collaboration with other agencies aim to improve development, learning, health and wellbeing outcomes for children and young people, their families and the community. The strength of these has resulted in additional Children's Centres being established, along with an increase in the range and availability of services, in particular Allied Health which includes psychology.

A further example of government policy directing collaboration is an initiative by the Victorian Department of Health and Human Services, *Services Connect* (State Government of Victoria, 2014) which aims to connect with people to address a range of individual or family needs and to provide the right support through a model of integrated human services. The *Services Connect* partnerships bring together groups of community service providers to deliver integrated child and family support, mental health, alcohol and drug treatment, family violence, homelessness, housing, disability and Aboriginal specific services. The success of this model is reflected in the expansion of *Services Connect* to other sites in partnership with the community services sector. The school psychologist is one of the professionals who may be involved to provide discipline specific information and expertise to the collaboration.

The Art and Science of Working Collaboratively

There are a number of competencies and capabilities that are foundations to the "art" and "science" of working collaboratively (Brown, Pryzwansky, & Schulte, 2001; Keast & Mandell, 2013a). They might be recognised as being drawn from different areas of psychology specialty such as organisational, clinical, educational and counselling. Many of these are integral to training as a psychologist, but others are learned and developed in context.

The "science" of working collaboratively includes the skills and knowledge that the psychologist brings to the context, and is the evidence base for collaboration. The broad experience and specific knowledge base of the school psychologist informs and directs the collaborative processes and outcomes (Brown et al., 2001). Typically this includes knowledge of:

- Child development (cognitive, social, emotional, behaviour, language) and how this manifests in typical and atypical developing students
- Brain development/functioning and how this affects learning and behaviour
- Assessment of cognition, learning, behavioural functioning, overall development
- Evidence-based models, intervention and prevention strategies
- Issues of language and culture
- Families, family systems and community
- The immediate work context and the broader organisation
- Relevant legislation, legal issues and ethical standards
- What constitutes effective collaboration

How the psychologist interacts with and relates to others involved is critical to success. Effective communication and interpersonal skills form the foundation of collaboration (Arredondo, Shealy, Neale, & Winfrey, 2004; Guiney, Harris, Zusho, & Cancelli, 2014). Relationships build from the communication and understandings between those involved. These require development of trust, valuing the skills others bring to the situation, and the capacity to foster constructive sharing of knowledge and expertise (Brown et al., 2001; Keast & Mandell, 2013b).

The school psychologist brings an understanding of intrapersonal and interpersonal dynamics at the individual and group level, and the processes for productive collaboration. They may take on the role of the lead or the facilitator, and are certainly in a position to be an influencer of the process. The "art" of working collaboratively means the psychologist knows why and when they take on the various roles, and the difference between them. When issues arise they draw on their skills to manage the dynamic so that focus remains on the task(s) at hand. Their skills in conflict management and negotiation can facilitate constructive resolution of matters that might otherwise interfere with the progression towards outcomes.

Another skill set that the school psychologist can bring to collaboration is that of the ability to be objective, think critically and plan strategically (Eagle, Dowd-Eagle, Snyder, & Holtzman, 2014). While other professionals may also have these skills, psychologists bring discipline specific perspectives grounded in psychological theory (Arredondo et al., 2004; Gilmore, Fletcher, & Hudson, 2013; Norwich, 2013). They identify

problems, clarify priorities, set goals and tasks, undertake research and have knowledge of evidence-based interventions. While these skills are also used in consultation, in collaboration the participants are more equally and actively involved in using these skills to contribute to the processes. The collection and analysis of data for problem-solving, as well as for monitoring and evaluation purposes, is key to the planning process (Arredondo et al., 2004; Eagle et al., 2014; Guiney et al., 2014). The school psychologist helps identify resources (human, physical and financial), and may assist with access to these resources.

An understanding of how effective change occurs is crucial for ensuring that the pace, intensity and focus of the work of the collaboration and intervention are aligned to the purpose, and are acceptable and attainable by those involved (Keast & Mandell, 2013c). The change process is most successful when there is active participation in the planning for change by those who are likely to be affected by outcomes of the change. The ideal process to chosen change is an agreed need for change, with the desired outcome and the steps to achieve that outcome also agreed. It is important to recognise the different positions and level of skill to manage change for those affected. The pace of the change must be monitored and preferably tempered to the needs of the group and individuals, support should be provided for those involved (both professionally and personally) and recognition be made of the progress however small. Acknowledgment and celebration when goals are reached is part of the process (Brown et al., 2001).

For example, the school psychologist might work collaboratively with school leadership and early years teachers to coordinate the development of literacy skills in young children. A number of factors may influence teachers' ability or willingness to examine their own practice and to share in the collaborative process including school culture, shared goals, access to training, experience in and personal dispositions to engaging in reflective and collaborative practice (Australian Institute for Teaching and School Leadership Limited, 2016; Government of South Australia, 2016). Discussions would need to occur to ensure that the teachers are willing to participate and to share their knowledge, personal expertise and to learn with others. Once there is commitment to the process the group would decide on their goals, both short term and long term, and the approach to reach those goals. The school psychologist might act as the facilitator of this collaboration and could also contribute their expertise in data collection and interpretation, in the evidence base of literacy instruction, and intervention for students who are lagging behind. The pace of change would be geared to the needs of the teachers, and their responses to the collaboration. Engagement from collaborators may vary over the time of the change process, due to a range of factors, and would have to be taken into account. The psychologist might collaborate more specifically with individual teachers in designing how the actions are implemented within their classrooms. The group would monitor their progress through a range of data and observation, and as the goals are reached acknowledge and celebrate the changes, and the progress of the students.

There are a number of roles that a psychologist might take in a collaborative process including team facilitator, leader, scribe, coach and team member. It is important that the psychologist is self-aware and is cognisant of the differences between roles in order to make an informed decision about which role or roles they undertake. For example, being an advocate for a child requires specific skills, and may be appropriate for some purposes in a particular situation, but would not normally be an identified role for a psychologist within a collaborative process.

Of critical importance when working collaboratively is an understanding of how systems operate (e.g. the school as an open system); knowing how to identify points of influence and control; the positional power and power to act; potential barriers and blocks; and how and where to intervene systemically (Arredondo et al., 2004; Brown et al., 2001). Schools as systems involve complex interactions where there may not be clear links between cause and effect; change in one point of the system is likely to have consequences elsewhere, intended or unintended.

Systems have their own culture and subcultures, and have goals and values that are both explicit and implicit. In a school there may be explicit goals about student behaviour, but with varied beliefs held by of staff about how to attain this implicitly impacting on the culture and goals (Brown et al., 2001). The decision-making processes may be influenced by those not in nominal positions of power. For example, it may be more effective to involve the school counsellor rather than the deputy principal in order to have the school commit to a process for change. Involving a teacher with a mentoring role within the school, or an ability to promote a particular change, could assist with the tasks of the collaboration.

Increasingly psychologists must have the skills for engagement with, and use of technology to facilitate their work. There are an expanding range of tools and apps that facilitate collaborative practice. These include for communication (e.g. email, voicemail, Wiki, Moodle, online interactive learning, webinars, cloud technology for document sharing and large file transfer systems); for real-time communication/conferencing (e.g. videoconferencing, Skype, teleconferencing, application sharing); and collaboration management tools (e.g. project management systems, online proofing, knowledge management systems). The school psychologist must be mindful that many technologies are not secure, nor supportive of confidentiality, therefore a check before their use is critical (Pfohl & Jarmuz-Smith, 2013; Silberglitt & Hyson, 2013).

The "art" of collaboration brings into play an array of personal characteristics, and abilities that draw on the skills and knowledge of the psychologist, and how to integrate these. First and foremost, to be artful the psychologist requires knowledge of self, their own biases, how they react and behave, and their personal culture (Arredondo et al., 2004; Brown et al., 2001). Such awareness reduces the risk of limiting the effectiveness of interactions within the collaboration. As well as being self-aware, the effective collaborator has the ability to gain a real understanding of the perspectives of others and has a genuine desire to work with those involved.

Working in collaborative relationships takes time, so the psychologist needs to show perseverance and tenacity and willingness to see the activity to the end (Keast & Mandell, 2013a). Irrespective of the challenges that one may experience in the process of collaboration, it is helpful for those involved to maintain a sense of humour, to look for opportunities to see the fun side of things, and to "celebrate" success.

The art of collaboration includes the use of skills and insight to work with the group and its members towards an agreed outcome. The "artful" school psychologist reads interactions and exchanges, links and leverages relationships, recognises levels of trust and commitment, and the limitations of members. They recognise, articulate and assist the group to understand the uniqueness of the presenting context and issues. The experienced collaborator spends considerable time on assisting with agreed problem representation and definition, rather than trying to find possible solutions early (Brown et al., 2001). They appreciate and accommodate multiple and sometimes conflicting views, and deal with resistance and issues of values and ethics in order to gain "buy-in" and engagement. They are able to release personal and positional power and control when necessary, and minimise dependency through effectively facilitating others to "have agency", that is to make a genuine contribution and to actively influence the process. One way to motivate the collaborative group is to model elaborative practice and to foster a culture of learning (e.g. from other participants and through researching alternatives) which can facilitate greater understanding of others' roles and promote a sense of personal and professional empowerment for participants (Harris, Rendall, & Nashat, 2011). Another key element of working artfully is to have sound understandings of the political climate and circumstances of the situation, including policy and the impact of systemic and economic factors (Arredondo et al., 2004).

When Do School Psychologists Collaborate?

Within the school context collaboration can take many forms and be facilitated at many levels. Collaboration can occur within school settings to

support individual or groups of students, their families, teachers and school leadership. Other forms of collaboration focus on broader areas such as whole school programmes and processes, and through building active partnerships with local communities, families and/or caregivers. There are times when collaboration is critical, such as when there is a significant degree of complexity or level of risk, when multiple services are involved, or at points of transition between education settings.

Social, academic and behavioural difficulties of students can have a significant impact on effective teaching and learning in school settings. Whole school intervention and prevention practices are therefore an important form of collaboration when supporting students and staff. Whether the focus be on teaching and learning, well-being or behaviour, approaches that utilise a collaborative framework can enable schools to develop comprehensive whole school strategies that are tailored specifically to their individual context and school community.

Examples of these types of evidence-based approaches are the KidsMatter (KidsMatter, 2013) and Mind Matters (Mind & Component Framework, 2014) mental health promotion, prevention and early intervention (PPEI) initiatives. The comprehensive School-Wide Positive Behaviour Support (SWPBS) approach is another whole school framework that focuses on building the school's capacity to enhance social learning and develop prosocial behaviour for all students (Lewis, Barrett, Sugai, & Horner, 2010). Each of these collaborative frameworks draws on similar implementation principles with an emphasis on empowering schools to develop a range of evidence-based practices and effective school processes tailored to their context through a collaborative team approach. These frameworks consider a multipronged approach as optimal with an emphasis on building capacity in areas of prevention, intervention and ongoing sustainability. They recognise that learning and well-being are inextricably linked, and that the family, school and the wider community all have an influence on student outcomes.

Collaborative frameworks such as the KidsMatter/Mind Matters and SWPBS initiatives ensure comprehensive information, training modules, handbooks and support materials are freely available on the internet at no cost which is vital in a resource limited educational climate. Comprehensive documents or online training modules guide the team through a 2–5 years process that builds on what is already established in the school as well as identifying future goals and directions. By employing structured and well-supported collaborative frameworks, schools are enabled to clarify goals, develop plans of action, embed the process into the school, analyse outcomes and ensure long-term sustainability (Durlak & DuPre, 2008; KidsMatter, 2013; Lewis et al., 2010; Mind & Component Framework, 2014).

There is extensive evidence that well-designed approaches to intervention are significantly more effective when implemented with fidelity (Durlak & DuPre, 2008). Within this context the school psychologist is ideally placed to facilitate an environment of collaboration, shared decision-making and collective ownership while maintaining fidelity to the approach. To build sustainability, school leadership, staff and students should be involved in all levels of programme selection, implementation and outcome assessment. This ensures that all processes and protocols are manageable, achievable, serve a clear purpose based on a collective goal, and therefore are more likely to be sustained over time.

Research also suggests that school problem-solving teams are more effective when data is utilised in decision-making, effective problem-solving processes and practices are in place, and each member of the team is engaged (Lewis et al., 2010; Sugai & Horner, 2009; Todd et al., 2012). The SWPBS, KidsMatter and Mind Matters approaches reinforce this methodology by encouraging the continued gathering of qualitative and quantitative data to guide the planning process. The school psychologist is also well placed to support this process by assisting with data collection and analysis. Schools may require support in identifying which data will be useful to collect and how it can be used to define problems and solutions. Determining how to define and measure effectiveness of implementation and intervention outcomes is also an area where schools may benefit from consultation and collaboration.

An aspect of the psychologist's role can be that of a "critical friend" to the school (Costa & Kallick, 1993). The role of the critical friend is wide and varied and will depend on the context and needs of the individual school. The general focus is however on cultivating respectful and productive relationships where all ideas and views are heard. For school processes and practices to be implemented effectively, the psychologist as a critical friend can work to engage and enable stakeholders such as staff, students and their parents/caregivers throughout the planning and decision-making processes. To do this the psychologist needs to have a thorough understanding of the school's mission statement and goals, school community and local culture, and clear accessible communication processes (Butler et al., 2011; Lewis et al., 2010; McKevitt & Braaksma, 2008).

The school psychologist can also assist teams in identifying the practices and school processes that will enable them to function effectively and efficiently. Support with tasks such as defining roles, setting strategic and measurable goals, maximising time, running meetings, utilising data, developing concrete plans of action and engaging with families and private service providers is often beneficial (Todd et al., 2012). The psychologist can play an important role in supporting school leadership to integrate the often complex educational, legal and administrative requirements of schools and embed these into whole school practices. They may assist with operationalising policies and guiding principles; provide information; help to engage staff, students and parents; and link schools to community supports, resources and expertise where relevant (Lewis et al., 2010).

The strengthening of home–school partnerships has been linked to improved academic outcomes, student motivation, behaviour, self-confidence and attitudes towards school (Emerson, Fear, Fox, & Sanders, 2012). A collaborative partnership between teachers and families assists parents to develop effective learning strategies and provides both consistency and additional support for the student (Henderson, Johnson, Mapp, & Davies, 2007). Actively engaging parents and caregivers in the educational process enhances the family's role as being integral to students learning by building shared expectations, goal setting, and supporting student learning. By regularly drawing on parent perspectives and contributions, the concept of children's education as being a shared responsibility and process is reinforced (Berthelsen & Walker, 2008; Darsch, Miao, & Shippen, 2004).

Effectively engaging parents in the learning process requires the provision of clear information and support to parents in relation to curriculum, student behaviour, expectations and teaching strategies, while also drawing on their knowledge and views of the student (Emerson et al., 2012; Stormshack, Margolis, Huang, & Dishion, 2012). The school psychologist can facilitate this process by exploring the various ways schools can reach out to families and also encourage an understanding of the student's family beliefs and values, cultural backgrounds and community contexts.

Enhancing school–family communication processes is fundamental to engaging families in student learning by providing families with regular clear information about what students are learning and doing at school, regular opportunities for discussion and offering supports when required such as language translations and visual materials (Lewis et al., 2010). Encouraging greater use of communication tools such as email, mobile phones and websites, and providing training in teaching skills also helps to empower parents as teachers. Other ways schools can actively engage families are to encourage participation in activities, provide opportunities for volunteering, cultural events, linking families together, providing home visits and giving regular feedback about their child's strengths and challenges (Coleman, 2013).

The school psychologist can also enhance support to schools through encouraging increased community engagement (MacGregor, 2006). Additional school support services and student learning opportunities can be developed through diverse and inclusive collaborative partnerships with a range of community services and local resources. The school psychologist can act as a liaison between the school and local services such as youth initiatives, health service providers, crisis supports, local employment networks, alternative education options, cultural groups, and so on. In

addition to building awareness of relevant initiatives, grants and resources, the psychologist can initiate active collaborations with local businesses, community groups, higher education providers and local residents who may be willing to provide opportunities typically not available to students, such as work experience, specialised skill building, donations of materials or specific workspaces and cultural activities (Family-School and Community Partnerships Bureau, 2014; Lonsdale, 2011). Collaborative partnerships can also provide support directly back into the community where students and staff can be encouraged to offer services such as recycling programmes, arts programmes and services to vulnerable community members which in turn can strengthen school programmes and student learning goals.

At times school psychologists can find themselves juggling the often competing demands and expectations of students, parent and carers, school staff and school sectors. School staff, students, their parents or caregivers may require support from the psychologist to understand each other's perspective and value their contributions. Encouraging all stakeholders to value and respect each other's, at times differing, perspectives of a child's abilities and progress enhances the building of positive relationships, draws on existing strengths and provides enriched opportunity for creative problem-solving. Disagreements can be reframed as an opportunity to see things from an alternative perspective, reconsider previous assumptions and develop communication skills which are all integral to building a whole school collaborative approach to improving student outcomes.

School psychologists often use a range of data sources to inform decision-making and guide intervention approaches (Lewis et al., 2010; Sugai & Horner, 2009; Todd et al., 2012). Building the capacity of schools to collect and analyse data such as academic results, behavioural and mental health concerns, and measures of staff and student well-being, can empower schools to clearly identify problems, develop concrete plans of action to address them, and set attainable and measurable goals specific to their school needs (Lewis et al., 2010; Todd et al., 2012). Effective data collection also provides information which can inform resource allocation and identify where further training may be required. For example, encouraging staff to develop simple recording systems to track behaviour concerns which include time, place, antecedents and consequences can provide detailed information about problem areas in the school which can be then measured and targeted for intervention.

Consider the example outlined below where a school has applied various forms of collaboration to develop a school-wide process for supporting student behaviour. The School-Wide Positive Behaviour Support (SWPBS) approach (Lewis et al., 2010) provides schools with a tiered behavioural framework that is closely aligned with the Response to Intervention Framework (Fuchs & Fuchs, 2006) commonly used for academic development. The model proposes that challenging behaviour can be viewed as a learning difficulty and addressed predominantly through teaching and learning. Initial implementation or Tier 1 emphasises a preventative whole school approach, tier 2 extends to small group work for at-risk students and finally the third tier addresses the needs of students requiring individual supports (Lewis et al., 2010). Note the psychologist's role as a "critical friend" who supports and guides the process while enabling the whole school community to develop their own unique approach based on their specific context.

Potential Challenges to Collaboration

While there are challenges to collaboration, such as individuals' understandings of roles, collaborative processes and access to resources, when these are managed effectively the collaboration process and outcomes are strengthened (Keast & Mandell, 2013a).

Effective collaboration requires clear governance structures where individuals and agencies have shared goals and understandings, as well as a commitment to active engagement in the process. When common understanding of collaboration, and roles and professional boundaries are

not clarified as part of the initial negotiation, difficulties may arise later when those misunderstandings interfere with progress. The skills that the school psychologist brings to the collaboration (described earlier in this chapter) can help in clarifying issues and in their resolution. Leadership of the collaboration is part of the initial negotiation and may be positional (e.g. school principal, mental health worker) or nominated (e.g. identified case manager, collaboration facilitator). Effective collaboration requires someone to ensure that the process stays on track and moves forward. This does not mean that the leader drives their own agendas. Working collaboratively is relational work, requiring individuals to have an awareness of the dynamics of the group and the needs of the individuals. If individuals or the group cannot find ways of ensuring the relationships and group dynamics are functioning effectively, the outcomes may not be achieved. The intrapersonal and interpersonal understandings, and the skills of the school psychologist in managing conflict, misunderstandings and ambiguity can facilitate the process if such difficulties arise.

Working collaboratively, particularly in the formative stages of developing connections and processes for working together, requires a commitment of time and additional effort (Head, 2006). Some individuals and agencies may not be prepared or able to commit to these requirements.

Within a collaborative group there may be power differentials because of positions held, professional experience, or knowledge that need to be managed. In particular, families and students may feel as if they do not have an equal voice in contributing to discussions and in decision-making. Power differentials may exist when there is access to, or control of, resources by one or more of the participants. Whilst access to adequate resources for both process and outcome is important, resources shouldn't be seen to drive the goals of the collaboration.

Where the goals of the organisation are pursued ahead of the needs of the student or family there is risk that there will be lower levels of engagement and misdirected effort. An effective collaboration responds flexibly and sensitively to the needs of the student and family while being cognisant of the requirements of the organisation (Keast & Mandell, 2013a). Collaboration may be limited when the culture, policy and procedures in an organisation (systemic or school based) are defined and implemented in ways that restrict flexibility. For example, where school leadership interprets their school behaviour policy rigidly and moves to exclude students rather than consider alternative ways of engaging them. Where there are differences of opinion about the priorities for addressing the identified needs occur it is critical that these differences are reconciled through focussed problem-solving and negotiation in order for the collaboration to be productive. The skills of the school psychologist can help facilitate this important process of resolution.

Individuals may come with hidden agendas which work against effective collaboration and outcomes. Individuals may perceive, or others may perceive of them, that they do not have the range of skills and knowledge to contribute effectively to the collaborative process (Thornberg, 2014). There is a risk that participants may feel impotent to make a difference when there are limitations to the collaboration group's ability to provide the expertise or service identified as the most appropriate or most important. The school psychologist may be able to assist by identifying the limitations of the current collaborative process, and identify the need to seek additional support or expertise external to the collaboration.

School psychologists working in rural and remote locations may find that they are one of only a few professionals available for schools and families (Edwards, Chapman, Plumb, & Gostelow, 2010). The range of services available may be limited and some may visit on a regular or infrequent basis. Collaboration may need to occur from a distance or online, adding further complexity and time-related issues. Working in small communities poses unique ethical and professional issues, e.g. multiple relationships and confidentiality (Australian Psychological Society, 2014; Thomson, 2011).

Legal and Ethical Considerations

While collaboration is an effective strategy for working in educational settings, it is important that the psychologist is cognisant of the complex

array of legal, policy and ethical frameworks and obligations that overlay their work (Dougherty, 2009). Different aspects of these will have greater relevance in particular settings and situations. Legislative and legal frameworks, which cover areas of public life relevant to the role of a psychologist working in an education setting, exist at international, national and individual state or territory levels.

The United Nations *Convention on the Rights of the Child* (United Nations International Children's Emergency Fund, 1989) has universal expectations for the treatment and development of children. Australia as a signatory has an obligation to uphold those conventions. Specifically Articles 28 and 29 relate to education and state that children should have a right to education and that it should develop each child's personality and talents to the full. The effective use of collaborative practices adds value to meeting their learning and development needs (Miller, Colebrook, & Ellis, 2014).

In Australia a number of federal and state or territory legal frameworks are in place, which govern registration, professional practice standards and the rights of individuals. Legal guidelines originate in both statutory and case law. The psychologist must be fully aware of their obligations as directed by these frameworks in all work they undertake. Collaboration can present legal and ethical dilemmas which if not managed appropriately may potentially represent non-compliance with standards of the profession or an illegal act in that an individual's rights are violated.

For example, collaboration around casework demands interactions with at least one and usually a number of other parties. As highlighted in the section on the "Art and Science of Collaboration" in this chapter, open communication and sharing of information is essential to collective problem-solving. The school psychologist must be fully aware of what they can share with whom and in which forums and always with fully informed consent, except where legally is it required to share or report if an individual's or the public's safety is at risk. Aside from the legal and ethical issues, collaborative information sharing processes may potentially be perceived by children, young people and families as lacking assurance around confidentiality and how that information will be used, thus influencing the level of trust they have in the process (Parton, 2009).

Relevant federal standards and legal requirements are detailed in the following:

- The Australian Health Practitioner Regulation Agency (AHPRA) (Australian Government, 2010b) under the auspices of the Health Practitioner Regulation National Law Act (2010a) regulates 14 professional boards and associated professional registration and standards. The Psychology Board of Australia is one of these boards and AHPRA has adopted the Australian Psychological Society (2007) Code of Ethics for the psychology profession.
- Privacy Act (Australian & ComLaw, 1988) regulates the handling of personal information about individuals and includes the Australian Privacy Principles. The Freedom of Information Act (1982) defines the rights of individuals to request access to documents from Australian Government ministers and most agencies.
- The Disability Discrimination Act (Australian Human Rights Commission, 1992) provides protection for everyone in Australia against discrimination based on disability. The application of the DDA within the education sector is directed through the Disability Standards for Education (2005) which outline the obligations of education and training service providers, and the rights of people with disability.
- The Racial Discrimination Act (Australian Human Rights Commission, 1975) provides protection for everyone in Australia against discrimination based on race.
- The Sex Discrimination Act (Australian & ComLaw, 1984) provides protection for everyone in Australia against discrimination based on sex.

Case Studies of Collaboration

This chapter has presented the rationale for collaboration as well as what are some of the essential skills that a school psychologist needs to have and the variables that warrant consideration in

provision of collaboration within the school context. It may be helpful for the reader to see examples of school-based collaborative models and the role of the school psychologist in each of these examples. These examples are reflective of individual planning, team-based approaches and systemic approaches to change.

Person Centred Planning

Students with significant needs often require the integration of multiple services and supports (Eaves & Ho, 2008). For school-age children, many of these supports are guided through educational law and administered through an array of children's services with school being a hub and impetus for direction. For many high needs students who age out of the educational system, they often do not "age out" of their disability and needs. In many circumstances, these young adults are faced with traversing a chasm between the cessation of school-age supports and the initiation of adult supports. Often, these two support systems operate according to separate legislation, separate funding, and within very different infrastructures. These characteristics pose a very significant challenge for the transitioning young adult and their family.

Person Centred Planning (National Center on Secondary Education and Transition, 2004) is an approach used in the United States to assist students in their transition to post school life that is heavily reliant on collaboration. As with anyone, the post school life for students with disability encompasses various domains such as education or training, vocation and independent living. In Person Centred Planning, appropriate professional representatives work with the young adult and their family to arrange and coordinate the multiple services and supports needed in the multiple domains required for the young adult to be a productive member of society. These domains include vocation/training, residential/daily living and social/emotional. As an expert in human development, the school psychologist plays a very important role in helping integrate a youngster's assessed strengths and limitations into this planning process. Throughout a disabled student's academic experience, the school psychologist has had a unique perspective that allows him/her to understand how the different services and supports have coalesced to assist each individual student in building a developmental trajectory that is as close as possible to that of their non-disabled peers. In short, a school psychologist can help guide this orchestra of supports in supporting the student's own vision of an independent, productive life; just like everybody else.

Case Study: Person Centred Planning

John is an 18-year-old young adult with Down's Syndrome (trisomy 21). He exhibits moderate intellectual deficiency. Although he is a very pleasant youngster who enjoys socialising, his impaired language comprehension substantially limits his ability to socialise with same age peers. John also has significant visual/spatial cognitive deficits. Among the limitations that these deficits produce are driving, and handling machinery.

In a Person Centred Planning meeting that occurs while still in school, John is present with his family. He states that he would like to attend college, work in a business environment, hang out with other young adults and live at home. Appropriate professional representatives include a government funding representative, a vocational rehabilitation counsellor, a social worker specialising in disabilities, John's current special education teacher, his current speech and language teacher, and his school psychologist. Along with John and his parents, all participants have an area of expertise that they can contribute.

The school psychologist, special education teacher, speech therapist, vocational counsellor, family and John all discussed his interests, strengths and areas of weakness as they relate to vocational options. This group identified possible vocational experiences where John could find success and fulfilment. Through this collaborative process, plans were developed to explore vocational opportunities in the mailroom of a financial investment company. John was first brought in as an intern and eventually hired. His strengths included his pleasant demeanour and his ability to maintain confidentiality with respect to financial documents. John was taught to use transportation services available to disabled adults. This instruction included an educational component (money skills, time telling, schedule reading), social component (how to interact with the driver) and a

behavioural component (occupying oneself without distracting the driver). The integration of this instruction was developed collaboratively.

This same collaborative process was used to identify social opportunities for John. As a result of the Person Centred Planning process, John began volunteering at his local church, working with first grade students in a religious school. He also got connected to a group of students with mixed disabilities for a weekly bowling group. Lastly, John enrolled in an adult education class in painting at the local community college. Through this collaborative process, John was given opportunities to continue his lifelong development on a path that matched his strengths and interests. Most importantly, John, as an equal participant, provided valuable information and exercised his rights to self-determination.

Team Around the Child

The *Team Around the Child (TAC)* is a model of service delivery that engages directly with the child and family placing them at the centre of all collaborative processes (Government of South Australia, 2014). TAC works on the premise that the individual professionals are more effective when they commit to collective and collaborative effort, joining an intervention system ultimately leading to better outcomes for children and families. It does this by providing a framework and process for engaging with the family and a range of professionals, who otherwise may be quite loosely connected, to work more closely together with the most complex and vulnerable students (Government of South Australia, 2014). Strengths of the model are that it is family centred, provides a seamless service, promotes positive engagement and is outcomes focused (Keast & Mandell, 2013d). The following case study of a young child with complex needs whose family was also experiencing some challenging circumstances demonstrates how multiple professionals worked collectively and collaboratively to holistically support and strengthen the child and family.

Case Study: Team Around the Child

Georgia is a 7-year-old girl who has Autism and Intellectual Disability. Georgia lives with her parents and two younger siblings one of whom has global developmental delays. Georgia's mother is at home caring for the family and her father works in the mines, maintaining a fly-in, fly-out roster for the last 4 years.

Georgia attends a special class facility within a mainstream school. Although the adjustments to the educational curriculum for the class were developed for children with similar needs, Georgia continued to experience receptive and expressive language difficulties which impacted her social interaction and independence in particular. Initially a referral was made to the psychologist because of increasing instances of externalised behaviours exhibited by Georgia which interrupted the learning programme and often resulted in her being removed from the class. After interacting with Georgia informally, observing her across a range of settings and holding interviews with both Georgia's mother and the class teacher, the psychologist suggested that a TAC approach would be an effective process to address multiple presenting issues.

A TAC, consisting of the family, the school psychologist, a social worker from an outside agency, a private speech pathologist who had been involved with Georgia when she was younger, and school personnel, collaborated to identify goals for Georgia's development and learning. The psychologist took on the role of the lead practitioner because she had developed a good relationship with Georgia's mother and had well-established connections with the school. The primary goals focussed on developing Georgia's independence and self-help skills, as well as her communication and skills in social interactions with other children. Once the team was established, focussing on solutions and small steps to implement goals in a consistent manner both at home and school gave a positive focus that kept the momentum going.

Georgia's goals were achieved through explicit skill instruction, implementing visual supports and strategies and providing consistent scaffolded and reinforced learning opportunities. The responsibility for the progress did not rest with one person, but with the team. For example, the speech pathologist undertook an assessment and had a significant role helping Georgia's mother and school staff better understand Georgia's level of

receptive and expressive communication skills as well as providing developmentally appropriate goals. Georgia's teacher worked with the psychologist to review the physical space and social dynamic of the class environment. Amongst other things the class furniture was reorganised to allow for a comfortable, quiet withdrawal space, routines were tailored to provide a more predictable structure, visual supports and strategies were implemented to better facilitate understanding, and specific instruction in cooperative play was implemented. The psychologist provided additional advice in respect to routines and building Georgia's skills at home. Georgia's mother also used a similar visual activity schedule using characters from one of Georgia's favourite cartoons and supported Georgia's communication in ways suggested by the speech pathologist.

During the initial interview with the psychologist, Georgia's mother identified that she had experienced feelings of isolation and not being able to cope with managing three children on her own for long periods when her partner was away working. The social worker linked the family to a local Children's Centre which had multiple facilities and services including an inclusive preschool where the child with global developmental delay could enrol, as well as childcare for the youngest child which enabled Georgia's mother to have some time to herself. The social worker also contacted Georgia's father who had expressed concerns for his partner's well-being and his own feelings of being disconnected from the family. They talked about planning a "family fun" activity to look forward to each time he returned home as well as time for Georgia's mother and father to have outings together.

Through the intensive interactions and collaborative problem-solving facilitated by the TAC process, the participants indicated that they had developed a better and more realistic understanding of Georgia's strengths and areas for development. The collective perspectives engendered "buy-in" and ensured members were prepared to try a wider range of intervention options that were more accurately targeted. Over a period of 10 months positive outcomes included Georgia independently accessing and using visual supports at home and school, decreasing her reliance on others and her associated frustration; better understanding of and targeted communication goals; other children in the class began to interact with Georgia and she was invited to a birthday party; Georgia's younger brother commenced in an inclusive preschool; Georgia's mother developed a social connection through the Children's Centre; and the family structured time together and Georgia's mother and father identified that they felt better connected as a family.

It is worth noting that the changes to the special class supported independence and learning for all children and enhanced the class interactions. TAC participants reported they had developed their understanding of and capacity to use the TAC model and processes and saw how significant the impact could be for a child and family when the relevant professionals and services collaborate around common goals. They would definitely consider using this approach for other students.

Case Study: The School-Wide Positive Behaviour Support (SWPBS) Approach

A primary school has received negative feedback from parents about student behaviour in their school. A number of parents have reported that their children are anxious about coming to school due to bullying and poor student behaviour. Some staff are also reporting that they feel they are not sufficiently supported to manage significant challenging behaviour in the classroom. The school has a diverse population within their school community including a number of students with complex social–emotional and learning needs. Rather than revert to "another programme" which tends to take a "one size fits all" approach, the psychologist suggested SWPBS (Lewis et al., 2010), a collaborative decision-making framework where all staff members, students and parent/carers work together and are empowered to solve behaviour problems in the school setting. The aim was to utilise data to inform decision-making and develop specific evidence-based interventions tailored to the school's particular needs.

The process began with initial survey data being collected to obtain staff, student and parent perceptions of the school in terms of school culture, student well-being, behaviour and views of how the school responds to student difficulties.

Survey results were then presented and further unpacked at a staff meeting. The school mission statement and goals in addition to current behaviour management practices and outcomes were also explored to ensure clear understanding of the challenges faced by staff when implementing behaviour management strategies. These activities thus began a process of engaging staff by acknowledging current challenges and demonstrating commitment to change from leadership.

The school psychologist was able to identify a specialist trainer in SWPBS who then was employed to provide training and information about the positive behaviour support process and assist with developing a concrete action plan for change. An SWPBS team comprising key staff, the school psychologist, and community, student and parent representatives was established and allocated fortnightly meeting times. The overall process and training provided by the psychologist was guided by the SWPBS blueprint (Lewis et al., 2010) and numerous resources freely available online (Positive Behavioral Interventions and Supports, 2015).

The psychologist was then able to facilitate the next phase of SWPBS with the school. This involved developing three explicitly stated behavioural school-wide expectations to which all staff, students and parents contributed through various classroom-based activities, parent and staff workshops. The final agreed upon expectations in this case were (1) Respect yourself and others, (2) Be safe and (3) Be ready to learn. The school psychologist assisted the school to operationalise these expectations by exploring with staff and student what specific behaviours reflected each of the expectations in all teaching and non-teaching areas of the school. Once defined and measurable behaviours were agreed upon, the psychologist was able to work with teaching staff to develop specific lesson plans developed to ensure these expectations were consistently and explicitly taught to all students throughout the school. Students further contributed by creating short films describing the school-wide expectations for new students and parents. A school SWPBS handbook was developed and sent to all parents, local community leaders and businesses. Various translations were also offered for families from non-English speaking backgrounds together with parent information sessions to encourage consistency in the home setting and ongoing contributions.

Acknowledgement and reinforcement systems were then developed with the psychologist where students earned points for following the school expectations. “Gotcha” tickets were utilised as a token economy where students were acknowledged and reinforced for demonstrations of target desired behaviours identified by the school community. The “Gotcha” tickets had a dual purpose of providing acknowledgment and reinforcement of student behaviour as well as measurable data to determine the degree to which school-wide expectations were being followed. The “gotcha” tickets were provided to teachers for easy distribution when they caught a student engaging in positive behaviour related to school-wide goals and students could add these to their personal tally. A “Points-shop” was created and staffed by students where the “gotcha” tickets could be traded for items donated by local businesses and community members such as treats from local stores, school supplies, or school-based rewards such as extended recess, celebratory notes sent home to parents, or free time. Additional group reinforcement systems included class parties, outings and special lunches for accumulated class points. Weekly tallying of data allowed staff to identify which students were or were not following school expectations and in which settings and hence provided concrete information for intervention planning.

Every part of the school was considered an integral part of the learning environment and all school personnel were responsible for knowing the behavioural expectations and providing consistent positive feedback to students. Although the predominant focus was on teaching and reinforcing desired behaviour, consistent consequences for behavioural infractions were also clearly established and supported by staff, students and parent/carers. The emphasis at this stage was to ensure that all systems were easily implemented by staff, motivating for students, and were able to provide comprehensive data which was presented at staff meetings on a monthly basis and to parents and community annually.

Various alternate methods of data collection were also utilised to guide decision-making and to determine the effectiveness of the process. Regular analysis of survey and behaviour data provided concrete evidence of improvement in student well-being and further strengthened commitment to the process. Once the whole school process was established, systems of support for students with more significant needs were found to be more effective as they were grounded in a comprehensive and consistent whole school approach. Further, effective use of data assisted the team to clearly identify gaps in the system or specific areas where more intensive intervention was required. This allowed for more targeted use of resources and clear measurement of outcomes.

The design and accurate implementation of SWPBS was able to assist the school in a number of ways. It provided a comprehensive school improvement framework that utilised data and inquiry to drive continuous improvement, all stakeholders were engaged by contributing to developing goals, processes and problem-solving, and the school was able to demonstrate in concrete terms the provision of a safe and supportive learning environment for all students.

In sum, the school psychologist was able to utilise the SWPBS whole school framework to enable the school to create a comprehensive and targeted continuum of interventions to develop prosocial behaviour in all students, while also intervening effectively for those students who were having difficulty. The collaborative nature of this process enabled the whole school community to contribute and take responsibility for the process, ensure ongoing sustainability and collect measurable data to ensure positive outcomes and accountability were achieved.

Future Directions

Collaboration is a very valuable component of school psychology service delivery. It is seen as foundational element in defining the role of school psychologist (NASP, 2010). Successful collaboration can produce high efficiency by eliciting positive outcomes within available financial boundaries (Dougherty, 2009). Sustainable growth for collaboration as a service delivery model is a very desirable goal for the future of collaboration in school psychology.

The challenge rests in the answer to the question of: "How?" The answer to this question begins and ends with commitment. Commitment must be obtained at two separate levels. To set up an appropriate infrastructure, commitment must be obtained from the administrative entities involved. The infrastructure needed to foster a collaborative environment would certainly need to include staff development in collaborative practices. Another important element to include is the allocation of joint meeting/planning time so that all stakeholders have mutual availability to share their expertise. The presence of appropriate technology (e.g. teleconference, videoconference) can help maximise the efficiency of this allocated time. Other concerns to be addressed would be the establishment of a supervisory protocol and mechanisms to resolve any disputes/disagreements.

In addition to securing administrative commitment, the commitment of the collaborators is of equal importance. This is no small undertaking. Collaboration, in the truest sense of the term, is a shared experience; with shared responsibility and decision-making. This will require all of the "experts" to relinquish their expertise to the pursuit of a shared goal. The use of the word relinquish is deliberate. As any expert will attest, expertise brings with it a strong conviction as to what works best within the context of their area of expertise. Considering the mutual ownership and voice inherent to collaboration, a roomful of experts and strong convictions can be a very daunting challenge for the collaborators, including the school psychologist. Specific training in collaboration and shared goal development will be critical in obtaining the required commitment from collaborators. School psychologists are well positioned to be trainers and facilitators of the collaborative approach.

The commitment to evidence-based services is central to the field of school psychology (National Association of School Psychologists, 2010). The

collaborative approach to service delivery is no exception to this tenet. Future directions for the use of collaboration could include research into several facets of collaboration and its effectiveness. This research should include refining models of collaboration to specifically match appropriate environments such as classroom, school, and interagency. In addition to model building and refinement, it is very important that cost-effectiveness studies be conducted to establish, support and continually refine the use of collaboration as an effective model of service delivery.

Test Yourself Quiz

1. What are three core facets of collaboration?
2. How does collaboration differ from consultation?
3. Is collaboration, as a model, limited in size?
4. What are some of the ways psychologists can collaborate?
5. With whom do school psychologists collaborate?

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Evidence-Based Assessment and Intervention for Specific Learning Disability in School Psychology

Kate E. Jacobs, Dawn P. Flanagan, and Vincent C. Alfonso

Introduction

Historically, the approach to specific learning disability (SLD) identification not only differs from state to state within Australia but also differs greatly from that in other countries such as the United States. In actuality, SLDs have not generally been formally recognized or funded in Australian schools. Consequently, identification of SLD does not usually form part of school policy or procedure (Firth, Frydenberg, Steeg, & Bond, 2013), and Australian school psychologists have reported minimal knowledge and skills in this area (Klassen, Neufeld, & Munro, 2005). However, community and political support for the formal recognition and funding of SLD students has been increasing in Australia more recently, with a 2010 report by the federal Dyslexia Working Group identifying the need for professional development for all school psychologists in the recognition, assessment, and diagnosis of SLD (Bond et al., 2010). Further, in 2015 a review of the Victorian Program for Students with Disabilities began, with a particular focus on the ability of the program to support students with dyslexia via the provision of additional resources to schools (Victorian Department of Education and Training, 2015). It is thus timely to consider what constitutes evidence-based identification of SLDs, and how these definitions may be applicable within the Australian school system. To achieve this goal, an examination of the US context is useful since the process of SLD identification has been formally legislated in this country for some time.

Prior to elimination of the ability-achievement discrepancy method of SLD identification from the Diagnostic and Statistical Manual of Mental Disorders—Fifth edition (DSM-5; American Psychiatric Association, 2013), there had been moves within the United States toward a response-to-intervention (RTI) framework as well as analysis of an individual's pattern of cognitive and academic strengths and weaknesses (Sotelo-Dynega, Flanagan, & Alfonso, 2011). While the RTI framework presents with many strengths, there are a number of salient weaknesses associated with using it as a stand-alone method of SLD identification. In contrast, the pattern of cognitive and academic strengths and weaknesses approach can be

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considered to provide a sound evidence-based framework for understanding the presentation and manifestation of SLD (e.g., Flanagan, Ortiz, & Alfonso, 2013).

After defining SLD and outlining some of the frequently used classification systems currently available, prevalence rates of SLD in both Australia and the United States will be presented. The historical context for the current state of SLD identification in the Australian educational system will then be outlined and contrasted with past and present methods of SLD identification in the United States. This includes the ability-achievement discrepancy method, RTI, and pattern of cognitive and academic strengths and weaknesses.

Definition and Classification Systems of SLD in the United States

Definitions of SLD date back to the mid to late 1800s within the fields of neurology, psychology, and education (Mather & Goldstein, 2008). The earliest recorded definitions of SLD were developed by clinicians, based on their observations of individuals who experienced considerable difficulties with the acquisition of basic academic skills, despite their average or above-average general intelligence, or those who lost their ability to perform specific tasks after a brain injury that resulted from either a head trauma or stroke (Kaufman, 2008). Given that clinicians at that time did not have the necessary technology or psychometrically defensible instrumentation to test their hypotheses about brain-based SLD, the medically focused study of SLD stagnated, leading to the development of socially constructed, educationally focused definitions that *presumed* an underlying neurological etiology (Hale & Fiorello, 2004; Kaufman, 2008; Lyon et al., 2001).

In 1963 Samuel Kirk addressed a group of educators and parents at the *Exploration into the Problems of the Perceptually Handicapped Child* conference in Chicago, Illinois. At this conference, Kirk presented a paper entitled "Learning Disabilities" that was based on his book, *Educating Exceptional Children* (Kirk, 1962). In this paper Kirk defined learning disabilities as

> a retardation, disorder, or delayed development in one or more of the processes of speech, language, reading, writing, arithmetic, or other school subjects resulting from a psychological handicap caused by a possible cerebral dysfunction and/or emotional or behavioral disturbances. It is not the result of mental retardation, sensory deprivation, or cultural and instructional factors. (p. 263)

Kirk's conceptualization of SLD was accepted by the conference participants and since then has influenced many US organizations' definitions of SLD, including the Learning Disabilities Association of America (LDA) and the Council for Exceptional Children (CEC), as well as federal legislation (e.g., P.L. 94-142). In addition, 11 different definitions of SLD in use between 1982 and 1989 contained aspects of Kirk's 1962 definition. Therefore, it is not surprising that a comprehensive review of these definitions revealed more agreement than disagreement about the construct of SLD (Hammill, 1990). Interestingly, none of the definitions strongly influenced developments in SLD identification, mainly because they tended to focus on conceptual rather than operational elements and focused more on exclusionary rather than inclusionary criteria. Table 1 illustrates the salient features of the most common definitions of SLD that were proposed by the United States and international organizations and SLD researchers, beginning with Kirk's 1962 definition. The majority of definitions depict SLD as a neurologically based disorder or a disorder in psychological processing that causes learning problems and manifests as academic skill weaknesses. In addition, most definitions indicate that SLD may co-occur with other disabilities.

Although the definitions of SLD included in Table 1 vary in terms of their inclusion of certain features (e.g., average or better intelligence, evident across the life span), the most widely used definition in the United States is the one included in the Individuals with Disabilities Education Act (IDEA) 2004 (Cortiella, 2009). Unlike other definitions, the IDEA 2004 definition refers to a *specific* learning disability (SLD), implying that the disability or disorder affects a specific academic skill or domain. Although in recent years, the term *specific* has been associated with the specific cognitive process or processes that are impaired,

Table 1 Salient features of learning disability definitions

Source	Salient features of LD definitions									
	Ability-achievement discrepancy	At least average overall ability	Neurological basis	Disorder in a psychological process	Evident across the life span	Listening and speaking	Academic problems	Conceptual problems	Nonacademic, language, or conceptual disorders as LD	Potential for multiple disabilities
Samuel Kirk (1962)	–	✓	✓	✓	✓	✓	✓	–	✓	✓
Barbara Bateman (1965)	✓	–	✓	✓	–	–	✓	–	–	✓
National Advisory Committee on Handicapped Children (1968)	–	–	✓	✓	–	✓	✓	✓	–	✓
Northwestern University (1969)	✓	–	–	✓	–	✓	✓	–	✓	✓
Council for Exceptional Children, Division for Children with Learning Disabilities (late 1960s)	–	✓	✓	✓	–	✓	–	–	–	–
Joseph Wepman (1975)	–	–	–	✓	–	–	✓	–	–	–
Education for All Handicapped Children Act (1975)	✓	–	–	✓	–	✓	✓	–	–	✓
US Office of Education (1977)	–	–	✓	✓	✓	✓	✓	–	–	✓
National Joint Committee on Learning Disabilities (1981)	–	✓	✓	–	✓	✓	✓	✓	–	✓

(continued)

Table 1 (continued)

Source	Salient features of LD definitions									
	Ability-achievement discrepancy	At least average overall ability	Neurological basis	Disorder in a psychological process	Evident across the life span	Listening and speaking	Academic problems	Conceptual problems	Nonacademic, language, or conceptual disorders as LD	Potential for multiple disabilities
Learning Disabilities Association of America (1986)	–	–	✓	–	✓	✓	✓	✓	✓	–
Interagency Committee on Learning Disabilities (1987)	–	–	✓	–	✓	✓	✓	✓	✓	✓
Individuals with Disabilities Education Act (1986, 1990, 1997, 2004)	–	–	✓	✓	✓	✓	✓	–	–	✓
National Joint Committee on Learning Disabilities (1990)	–	–	✓	–	✓	✓	✓	✓	–	✓
Kavale, Spaulding, and Beam (2009)	✓	✓	✓	✓	✓	✓	✓	–	–	✓

not the academic area affected (Flanagan et al., 2013). According to IDEA 2004, SLD is defined as follows:

> The term "specific learning disability" means a disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, which disorder may manifest itself in the imperfect ability to listen, think, speak, read, spell, or do mathematical calculations. Such a term includes such conditions as perceptual disabilities, brain injury, minimal brain dysfunction, dyslexia, and developmental aphasia. Such a term does not include a learning problem that is primarily the result of visual, hearing, or motor disabilities; of mental retardation; of emotional disturbance; or of environmental, cultural, or economic disadvantage. (IDEA 2004, § 602.30, Definitions)

Because definitions of SLD do not explicitly guide how a condition is identified or diagnosed, classification systems of SLD were developed. Three of the most frequently used classification systems for SLD are described next.

"Classification criteria are the rules that are applied to determine if individuals are eligible for a particular diagnosis" (Reschly, Hosp, & Schmied, 2003, p. 2). Although the evaluation of SLD in school-aged children in the United States is guided by the mandate of IDEA 2004 and its attendant regulations, diagnostic criteria for SLD are also included in the DSM-5 (American Psychiatric Association, 2013) and the International Classification of Diseases (ICD-10; World Health Organization, 2006). Table 2 includes the type of learning disorders and classification criteria for SLD in each system. Noteworthy is the fact that all three systems use somewhat vague and ambiguous terms, which interfere significantly with the efforts of practitioners to identify SLD reliably and validly (Kavale & Forness, 2000, 2006).

Despite the existence of various classification systems, students aged 3–21 years who experience learning difficulties in US schools are most typically evaluated according to IDEA 2004 specifications (IDEA 2004, § 614) to determine if they qualify for special education services. Because the classification category of SLD as described in the IDEA statute includes imprecise terms, the United States Department of Education (USDOE) published the federal regulations (34 CFR, Part 300) with the intent of clarifying the statute and providing guidance to state educational agencies (SEA) as they worked to develop their own regulations. The guidelines provided by the 2006 federal regulations were more detailed in their specifications of *how* an SLD should be identified. These guidelines are discussed later in this chapter.

The Prevalence of SLD

With regard to prevalence, the number of children in the United States identified as having SLD has tripled since the enactment of the Education for All Handicapped Children Act of 1975 (P.L. 94-142; Cortiella, 2009); however, the incidence of SLD in the school-age population has remained at about 4 % for many years (see Decker, Hale, & Flanagan, 2013).

The USDOE has collected data on students who have qualified for special education services since 1975. The most current data show that 2.6 million school-aged children are classified as SLD. This figure represents nearly 4 % of the approximate 66 million students currently enrolled in the nation's schools. Furthermore, of all students who have been classified with an educationally disabling condition, 43 % are classified as SLD (United States Department of Education, 2008). Table 3 shows that none of the other 12 IDEA 2004 disability categories approximates the prevalence rate of SLD in the population, a trend that has been consistent since 1980 (USDOE, 2006). For a more thorough discussion of the prevalence of SLD in the United States, see Decker et al. (2013).

While comparable Australian data to that presented in Table 3 for the United States is not currently available, this is soon to be redressed due to the recent launch of the Nationally Consistent Collection of Data on School Students with Disability initiative. Beginning in 2015, all government and non-government schools in Australia are required to participate annually in the national data collection which will provide nationally consistent data on the number of stu-

Table 2 Diagnostic classification systems for learning disability

Frequently used diagnostic classification systems for learning disability		
Classification system	Types of learning disorder	Examples of classification criteria
Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5, 2013)	Specific Learning Disorder with Impairment in:	Specific learning disorder
	Reading	A. Difficulties in learning and using academic skills, as indicated by the presence of at least one of the following symptoms that have persisted for at least 6 months, despite the provision of interventions that target those difficulties
	Written Expression	1. Inaccurate or slow and effortful word reading
	Mathematics	2. Difficulty understanding the meaning of what is read
		3. Difficulties with spelling
		4. Difficulties with written expression
		5. Difficulties mastering number sense, number facts, or calculation
		6. Difficulties with mathematical reasoning
		B. The affected academic skills are substantially and quantifiably below those expected for the individual's chronological age and cause significant interference with academic or occupational performance or with activities of daily living, as confirmed by individually administered standardized achievement measures and comprehensive clinical assessment. For individuals age 17 years and older, a documented history of impairing learning difficulties may be substituted for the standardized assessment
		C. The learning difficulties begin during school-age years but may not become fully manifest until the demands for those affects academic skills exceed the individual's limited capacities
		D. The learning difficulties are not better accounted for by intellectual disabilities, uncorrected visual or auditory acuity, other mental or neurological disorders, psychosocial adversity, lack of proficiency in the language of academic instruction, or inadequate education instruction
Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, Text Revision (DSM-IV-TR, 2000)	Reading Disorder	Mathematics disorder
	Mathematics Disorder	A. Mathematical ability, as measured by individually administered standardized tests, is substantially below that expected, given the person's chronological age, measured intelligence, and age-appropriate education
	Written Expression Disorder	B. The disturbance in criterion A significantly interferes with academic achievement or activities of daily living that require mathematical ability
	Learning Disorder NOS	C. If a sensory deficit is present, the difficulties in mathematical ability are in excess of those usually associated with it
		D. Must be differentiated from: normal variations in academic attainment, lack of opportunity, poor teaching, cultural factors, impaired vision and/or hearing, and mental retardation

International Classification of Diseases (ICD-10, 2006)	Specific Reading Disorder	Specific Reading Disorder:
	Specific Spelling Disorder	• A specific and significant impairment in the development of reading skills that is not solely accounted for by mental age, visual acuity problems, or inadequate schooling
	Specific Disorder of Arithmetical Skills	• Reading comprehension skill, reading word recognition, oral reading skill, and performance of tasks requiring reading may all be affected
	Mixed Disorder of Scholastic Skills	• Spelling difficulties are frequently associated with specific reading disorder and commonly remain into adolescence even after some progress in reading has been made
	Other Developmental Disorders of Scholastic Skills	• Specific developmental disorders of reading are commonly preceded by a history of disorders in speech or language development
	Developmental Disorder of Scholastic Skills, Unspecific	• Associated emotional and behavioral disturbances are common during the school-age period
		• Includes: Backward reading, developmental dyslexia, specific reading retardation
		• Excludes: Alexia, dyslexia NOS, reading difficulties secondary to emotional distress
Individuals with Disabilities Education Improvement Act (IDEA, 2004)	Specific Learning Disability in:	Specific Learning Disability:
	Oral Expression	1. A disorder in one or more of the basic psychological processes
	Listening Comprehension	2. Includes such conditions as perceptual disabilities, brain injury, minimal brain dysfunction, dyslexia, and developmental aphasia
	Written Expression	3. Learning difficulties must not be primarily the result of
	Basic Reading Skills	• A visual, hearing, or motor disability
	Reading Fluency Skills	• Mental retardation
	Reading Comprehension	• Emotional disturbance
	Mathematics Calculation	• Cultural factors
	Mathematics Problem Solving	• Environmental or economic disadvantage
		• Limited English proficiency

Table 3 Percentage of students with disabilities in the United States' school-age population

Students ages 6–21 years served under IDEA 2004		
IDEA disability category	Percentage of all disabilities	Percentage of total school enrollment
Specific learning disability	43.4	3.89
Speech or language impairment	19.2	1.72
Other health impairment	10.6	0.95
Mental retardation	8.3	0.74
Emotional disturbance	7.4	0.67
Autism	4.3	0.39
Multiple disabilities	2.2	0.20
Developmental delay ages 3–9 years only	1.5	0.13
Hearing impairments	1.2	0.11
Orthopedic impairments	1.0	0.09
Visual impairments	0.44	0.04
Traumatic brain injury	0.40	0.04
Deaf-blindness	0.02	0.00

Source: US Department of Education, Office of Special Education Programs, Data Analysis System (DANS). Washington, DC: IES National Center for Educational Statistics. Available from http://nces.ed.gov/das

dents with disabilities enrolled in Australian schools, as well as where they are located and the broad level of support they are provided with in school (Australian Government Department of Education and Training, 2015). Within Australia, students with both general and specific learning difficulties are estimated to constitute the largest cohort of students within mainstream classrooms that require learning support (Westwood, 2008). Specifically, between 16 and 20 % of the school-age population in Australia are considered to be experiencing general learning difficulties (i.e., low academic achievement resulting from a myriad of extrinsic factors such as cultural and/or language differences, inadequate instruction, or economic disadvantage), whereas a smaller subset of these students (4–5 %) are considered to have an SLD (Graham & Bailey, 2007; Louden et al., 2000). This latter estimate is consistent with the US prevalence rate reported above and indicates that within every average-sized Australian classroom (OECD, 2013), there is approximately one student with a SLD.

The Historical Context for the Current State of SLD Identification in Australia

The current state of formal recognition and support for students with SLD in Australia can be traced back to the 1970s when a government appointed Select Committee on Specific Learning Difficulties was formed to inquire into all aspects of learning difficulties (Cadman, 1976). Having grappled with the notion of learning disability as a diagnostic category, the committee decided insufficient evidence existed to support the notion that some learning difficulties experienced by students were intrinsic, rather than extrinsic, in origin. Consequently, the decision was made to use the more generic and all-encompassing term of *learning difficulties* to refer to students who experience academic difficulties in the areas of literacy and numeracy (Elkins, 2007; Graham & Bailey, 2007; Skues & Cunningham, 2011). Though evidence in support of the neurological, and therefore intrinsic, nature of SLD continues to accumulate (e.g., Butterworth & Kovas, 2013; Kucian et al., 2006), the effects of this decision are still felt within the Australian educational system where students with SLD are not guaranteed special education funding (Graham & Bailey, 2007; Rohl & Rivalland, 2002; Skues & Cunningham, 2011). Rather the policy within Australia is for school principals to exercise autonomy over the allocation of additional government funds to support students with disabilities within their schools (Commonwealth of Australia, 2015).

Further, most Australian state and territory education systems do not distinguish between *learning difficulties* and *learning disabilities* (Elkins, 2002), with the particular terminology being employed varying greatly between the different education systems within Australia, as well as between different schools within the one education system (Rivalland, 2000). Furthermore, it has

also been found that not only can staff within one school use different terminology, but when the same terms are used by different staff, different types of students are identified as experiencing learning difficulties, including students with low general cognitive ability, those suffering from behavioral disorders such as attention deficit hyperactivity disorder (ADHD), as well as students originating from culturally and linguistically diverse backgrounds (Rohl & Rivalland, 2002).

The implication of such a diverse and nonspecific array of definitions being employed within the Australian educational system is that confusion exists among educational professionals as to what exactly constitutes a learning difficulty. Further, it appears valid to conclude that there likely exists a general lack of awareness regarding the fact that some learning challenges stem from permanent underlying neurological impairments that are largely unaffected by intervention (Skues & Cunningham, 2011). Thus, while the academic manifestations of learning difficulties and learning disabilities are the same (i.e., below-average academic achievement in literacy and/or numeracy), the underlying causes are fundamentally different. Adequate understanding and recognition of this is important since different causes result in differential trajectories, thus requiring varied forms of support and intervention. Thus, it is vital that the assessment methods used to identify SLD adequately differentiate this condition from different causes of learning difficulties, such as below-average general cognitive ability, inadequate instruction, or cultural and linguistic differences, just to name a few.

It is important to note however that while SLD is not a formally recognized or funded category within the Australian educational system at present, these students are protected by the Disability Discrimination Act 1992 (Australian Government, 1992) and the subsequent education standards amendment in 2005 (Australian Government, 2005). This federal legislation provides a framework by which to ensure that all students with disabilities, including SLD, can access education on the same basis as other students via the provision of reasonable adjustments. However, the extent to which such legislation truly protects the rights of students with SLD can be considered questionable given that only broad guidelines are provided, with the process of interpretation and implementation being left to state and local education bodies (Cumming, 2012). Indeed, a recent review of the Disability Standards for Education 2005 reported that "A large number of submissions were received from parents of school-aged children with learning disabilities who expressed frustration at the limited effective supports available to their children" (Commonwealth of Australia, 2015, p. iii).

Likely resulting from the fact that students with SLD in Australian schools do not attract funding, systematic identification of SLD rarely forms part of school procedure (Firth et al., 2013). This is in contrast to the publicly funded disorders of severe language disorder and intellectual disability which are regularly assessed for by school-based professional staff such as speech pathologists and psychologists (Skues & Cunningham, 2011). Indeed some Australian school psychologists have expressed uncertainty regarding what their role is in SLD identification and have questioned whether they possess sufficient knowledge and training to provide services in this area (Klassen et al., 2005).

In a recent study, Meteyard and Gilmore (2015) surveyed 203 Australian practitioners (including school psychologists) whose professional responsibilities included assessment of students suspected of SLD, with the aim of investigating the theoretical models currently being used to conceptualize and identify SLD. Participants were asked to indicate the extent to which four major theoretical models of SLD identification influenced their practices; (1) significant discrepancies between IQ and academic achievement, (2) persistent low academic achievement, (3) intraindividual profile variation, and (4) lack of response to evidence-based intervention. While lack of response to evidence-based intervention was the most endorsed theoretical model, with 81% of respondents indicating it as *important* or *extremely important*, the remaining three models were similarly strongly endorsed by a half to two-thirds of participants. The authors

suggested that the "simultaneous endorsement of a range of theoretical perspectives reflects a lack of clarity about the best way to approach SLD diagnosis" (p. 7) among Australian practitioners.

While formal and consistent procedures for the identification of SLD are largely nonexistent within Australian schools, there is a national concerted effort to identify students experiencing learning difficulties more generally. This occurs via annual standardized assessment of reading, writing, and mathematics in years 3, 5, 7, and 9 using the National Assessment Program—Literacy and Numeracy (NAPLAN). However, as Skues and Cunningham (2011) point out, such methods are not attuned to identifying students whose academic underachievement is *unexpected*, a core and defining feature of SLD. Thus students and parents must often venture outside of the school system to seek assessment and diagnosis of SLD (Al-Yagon et al., 2013; Skues & Cunningham, 2011), with services provided by volunteer or publicly funded organizations or by private practitioners (Greaves, 2000). Unsurprisingly, the methods of assessment and diagnosis used by these different providers who exist outside of the school system vary greatly, likely resulting in confusion and uncertainty on the part of the consumer trying to decide between the different providers (Greaves, 2000).

In 2009, as a result of a forum held at the Parliament House in Canberra, a working party was formed and charged with the task of proposing a national dyslexia agenda. The final report, titled *Helping People with Dyslexia: A National Action Agenda*, was submitted to the Parliamentary Secretary in 2010 and provided a variety of recommendations covering the definition and recognition of dyslexia which included school and teacher training and support; assessment; support and accommodations for individuals, families, and professional staff; community awareness; employment and training; and research funding. While the report refers specifically to the SLD subtype of dyslexia, its conclusions and recommendations are applicable to all varieties of SLD which can affect achievement in reading, writing, and/or mathematics.

With regards to the process of assessment and diagnosis in Australia, the Dyslexia Working Group stated the following:

> In Australia at present, children and adults with dyslexia have no specified pathways to achieve diagnosis and support. In the education system there are few qualified to diagnose, and the wait time for school psychologists is up to a year… Individuals therefore have to fund their own diagnosis and subsequent support. On a user pays basis, only the financially secure can afford this. (Bond et al., 2010, pp. 8–9)

Consequently, the Dyslexia Working Group (Bond et al., 2010) provided the following recommendations in relation to the assessment of dyslexia:

1. Access to early, systematic, dyslexia assessment made available to all students identified as at risk for dyslexia by teachers
2. Initial screening and assessment of such at-risk students to be undertaken within the school environment, followed by in-depth assessment by appropriately trained professionals (such as psychologists)
3. The development of professional development programs for all school psychologists to assist them with the provision of appropriate assessment and support services to the schools in which they work

Past and Present Methods of SLD Identification in the United States

The current state of SLD identification in Australia is thus vastly different to that found in the United States where the process is highly formalized and regulated. Although the definition of SLD has remained virtually the same in the United States for the past 35 years, the methodology used to identify SLD changed in 2004 with the reauthorization of IDEA. According to the 2006 federal regulations (34 CFR § 300.307–309), a state must adopt criteria for determining that a child has SLD; the criteria (a) must not require the use of a severe discrepancy between intellectual ability and achievement, (b) must

permit the use of a process based on a child's response to scientific research-based interventions, and (c) may permit the use of other alternative research-based procedures for determining whether a child has SLD. Many controversies have ensued since the publication of the three options for SLD identification. The controversies have been written about extensively as they pertain to the exact meaning of the guidelines, the specifications of a comprehensive evaluation, the implications of using response to intervention (RTI) as the sole method for SLD identification, and the lack of legal knowledge among decision-makers. These controversies will therefore not be repeated here (see Fletcher, Barth, & Stuebing, 2011; Gresham, Restori, & Cook, 2008; Kavale, Kauffman, Bachmeier, & LeFever, 2008; Reschly et al., 2003; Reynolds & Shaywitz, 2009a, 2009b; Zirkel & Thomas, 2010 for a summary). The three options that are currently being implemented across the United States are described briefly here.

Ability-Achievement Discrepancy

A discrepancy between intellectual ability and academic achievement continues, in one form or another, to be central to many SLD identification approaches because it assists in operationally defining *unexpected underachievement* (e.g., Kavale & Flanagan, 2007; Kavale & Forness, 1995; Lyon et al., 2001; Wiederholt, 1974; Zirkel & Thomas, 2010). Despite being a laudable attempt at an empirically based method of SLD identification, the traditional ability-achievement (or IQ-achievement) discrepancy method was fraught with problems (e.g., Aaron, 1997; Ceci, 1990, 1996; Siegel, 1999; Stanovich, 1988; Sternberg & Grigorenko, 2002; Stuebing et al., 2002), many of which are bulleted in Table 4. The failure of the ability-achievement discrepancy method to identify SLD reliably and validly was summarized well by Ysseldyke (2005), who stated,

> Professional associations, advocacy groups, and government agencies have formed task forces and task forces on the task forces to study identification of students with LD. We have had mega-analyses of meta-analyses and syntheses of syntheses. Nearly all groups have reached the same conclusion: There is little empirical support for test-based discrepancy models in identification of students as LD. (p. 125)

Table 4 Salient problems with the ability-achievement discrepancy method

• Fails to adequately differentiate between students with SLD from students who are low achievers
• Based on the erroneous assumption that IQ is a near perfect predictor of achievement and is synonymous with an individual's potential
• Applied inconsistently across states, districts, and schools, rendering the diagnosis arbitrary and capricious
• A discrepancy between ability and achievement may be statistically significant, but not clinically relevant
• Is a wait-to-fail method because discrepancies between ability and achievement typically are not evident until the child has reached the third or fourth grade
• Does not identify the area of processing deficit
• Leads to overidentification of minority students
• Does not inform intervention

Source: Flanagan and Alfonso (2011). *Essentials of Specific Learning Disability Identification*. Hoboken, NJ: Wiley

Thus, the fact that states could no longer require the use of a severe discrepancy between intellectual ability and achievement (IDEA 2004) was viewed by many as a welcomed change to the law. The void left by the elimination of the discrepancy mandate was filled by a method that allowed states to use a process based on a child's response to intervention to assist in SLD identification.

Response to Intervention (RTI)

The concept of RTI grew out of concerns about how SLD is identified. For example, traditional methods of SLD identification, mainly ability-achievement discrepancy, were applied inconsistently across states and often led to misidentification of students, as well as overidentification of minority students (e.g., Bradley, Danielson, & Hallahan, 2002; Learning Disabilities Roundtable, 2005; President's Commission on Excellence in Special Education, 2002). Such difficulties with traditional

methods led to a "paradigm shift" (Reschly, 2004) that was based on the concept of *treatment validity*, "whereby it is possible to simultaneously inform, foster, and document the necessity for and effectiveness of special treatment" (Fuchs & Fuchs, 1998, p. 207).

At the most general level, RTI is a multitiered approach to the early identification of students with academic or behavioral difficulties. For the purpose of this chapter, we focus on RTI for academic difficulties only. The RTI process begins with the provision of quality instruction for all students in the regular education classroom, along with universal screening to identify students who are at risk for academic failure, primarily in the area of reading (Tier I). Students who are at risk for reading failure—that is, those who have not benefitted from the instruction provided to all students in the classroom—are then given scientifically based interventions, usually following a standard treatment protocol (Tier II). If a student does not respond as expected to the intervention provided at Tier II, he or she may be identified as a *nonresponder* and selected to receive additional and more intensive interventions in an attempt to increase his or her rate of learning. When one type of intervention does not appear to result in gains for the student, a new intervention is provided until the desired response is achieved.

The inclusion of RTI in the law as an allowable option for SLD identification has created perhaps the most controversy since IDEA was reauthorized in 2004. This is because in districts that follow an RTI-*only* approach, students who repeatedly fail to demonstrate an adequate response to increasingly intensive interventions are deemed to have SLD *by default*. Such an approach does not appear to be in compliance with the regulations. For example, according to the regulations, states must (a) use a variety of assessment tools and strategies to gather relevant functional, developmental, and academic information (34 CFR § 300.304[b][1]); (b) not use any single measure or assessment as the sole criterion for determining whether a child has a disability (34 CFR § 300.304[b][2]); (c) use technically sound instruments that may assess the relative contribution of cognitive and behavioral factors, in addition to physical or developmental factors (34 CFR § 300.304[b][3]); (d) assess the child in all areas related to the suspected disability (34 CFR § 300.304[c][4]); (e) ensure that the evaluation is sufficiently comprehensive to identify all of the child's special education and related services needs (34 CFR § 300.304[c][6]); and (f) ensure that assessment tools and strategies provide relevant information that directly assists persons in determining the needs of the child (34 CFR § 300.304[c][7]).

Although the use of RTI as a stand-alone method for SLD identification is inconsistent with the intent of the law, this type of service delivery model has been an influential force in US schools for about a decade, particularly with respect to shaping Tier I and Tier II assessments for intervention in the general education setting. The emphasis in an RTI model on ensuring that students are benefitting from empirically based instruction and verifying their response to instruction, via a systematic collection of data, has elevated screening and progress-monitoring procedures to new heights and has led many to embrace this type of service delivery model for the purposes of both prevention and remediation. In essence, RTI serves to improve accountability through data demonstrating whether or not learning has improved, and sufficient progress has been made. Table 5 highlights some of the most salient strengths and weaknesses of the RTI service delivery model regarding its use in the SLD identification process.

Alternative Research-Based Procedures for SLD Identification

The third option included in the 2006 regulations allows "the use of other alternative research-based procedures" for determining SLD (§ 300.307[a]). Although vague, this option has been interpreted by some as involving the evaluation of a "pattern of strengths and weaknesses" in the identification of SLD via tests of academic achievement, cognitive abilities, and neuropsychological processes (Hale et al., 2010; Hale, Flanagan, & Naglieri, 2008; Zirkel & Thomas, 2010). Several empirically based methods of SLD identification that are

Table 5 Strengths and weaknesses of RTI

Salient weaknesses of RTI as a stand-alone method of SLD identification	Salient strengths of a RTI service delivery model
• Lack of research on which RTI model works best, standard treatment protocol or problem-solving model, or under what circumstances each model should be used	• Focus is on the provision of more effective instruction
• Lack of agreement on what curricula, instructional methods, or measurement tools should be used	• Allows schools to intervene early to meet the needs of struggling learners
• Confusion surrounding what constitutes an empirically based approach	• Collected data better informs instruction than data generated by traditional ability-achievement discrepancy method
• Lack of agreement on what methods work across grades and academic content areas	• Helps ensure that the student's poor academic performance is not due to poor instruction
• Different methods of response/nonresponse lead to different children being labeled as responders/nonresponders	• Holds educator's accountable for documenting repeated assessments of student's achievement and progress during instruction
• No consensus on how to ensure treatment integrity	
• No indication of a true positive (SLD identification) in an RTI model	

Source: Learning Disabilities Association of America, white paper (Hale et al., 2010)

consistent with the third option have been developed, such as Flanagan and colleagues' dual discrepancy/consistency operational definition of SLD (Flanagan et al., 2013) and Hale and Fiorello's Concordance-Discordance Model (Hale, Kirby, Wycoff, & Fiorello, 2011).

Figure 1 provides an illustration of the three common components of third-method approaches to SLD identification (Flanagan, Fiorello, & Ortiz, 2010; Hale et al., 2008). The two bottom ovals depict academic and cognitive weaknesses, and their horizontal alignment indicates that the level of performance in both domains (academic and cognitive) is expected to be similar or consistent. The double-headed arrow between the bottom two ovals indicates that there exists an empirical or otherwise clearly observable and meaningful (ecologically valid) relationship between the academic and cognitive deficits, as the cognitive deficit is presumed to interfere with the acquisition and development of the academic skill in question. The oval depicted at the top of Fig. 1 represents generally average (or better) cognitive or intellectual ability. The double-headed arrows between the top oval and the two bottom ovals in the figure indicate the presence of a statistically significant or clinically meaningful difference in measured performance between general cognitive ability and the areas of academic and cognitive weakness. The pattern of cognitive and academic strengths and weaknesses represented in Fig. 1 retains and reflects the concepts of *specific* (cognitive processing deficit[s] within an otherwise normal or at least average cognitive ability profile) and *unexpected underachievement* (below-average achievement despite at least average ability in many cognitive domains, such as fluid reasoning and crystallized knowledge) that have historically been synonymous with the SLD construct (Flanagan et al., 2013; Kavale & Flanagan, 2007; Kavale & Forness, 2000).

In summary, it is clear that the extent to which the process of SLD identification in Australia is a formal part of the Australian educational system is vastly different to the current state of affairs in the United States. Nevertheless, political support for the formal recognition and funding of students with SLD has been increasing in Australia, with education ministers from both major political parties having recently sought to publicly raise awareness of the issue (Topsfield, 2013, 2014). Thus, as Australia moves closer to formal recognition and funding of students with SLD, a more detailed exploration of an evidence-based method of SLD identification in current use in the United States is warranted.

The US Context: Informing Australian Practice via an Evidence-Based Approach to SLD Identification

The dual discrepancy/consistency (DD/C) operational definition of SLD is presented in Table 6. This definition is an alternative researched-based

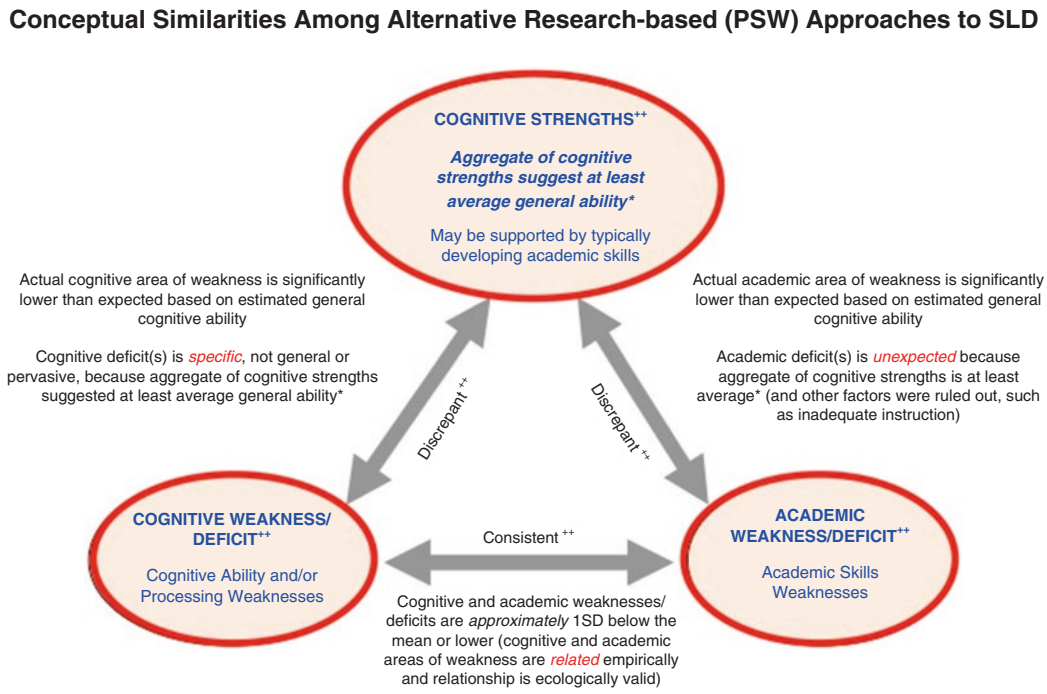

Fig. 1 Conceptual Similarities Among Alternative Research-Based Pattern of Strengths and Weaknesses (PSW) Approaches to Specific Learning Disability (SLD) Identification

approach to SLD identification consistent with the third option specified in the 2006 US federal regulations and depicted in Fig. 1. This option involves the evaluation of a "pattern of strengths and weaknesses" in the identification of SLD via tests of academic achievement, cognitive abilities, and neuropsychological processes (e.g., Hale et al., 2010).

Levels of Evaluation in the DD/C Definition

It is assumed that the levels of evaluation listed in Table 6 are undertaken after pre-referral intervention activities (see Mascolo, Alfonso, & Flanagan, 2014 for examples) that have been conducted with little or no success, and therefore a focused evaluation of specific abilities and processes through standardized testing is deemed necessary. Each level of the DD/C definition is described briefly below.

Level I: Weaknesses or deficits in one or more areas of academic achievement

By definition, SLD is marked by dysfunction in learning. That is, learning is somehow disrupted from its normal course on the basis of some type of inherent disorder or dysfunction. Although the specific mechanism that inhibits learning is not directly observable, one can proceed on the assumption that it manifests in observable phenomena, particularly academic achievement. Accordingly, the process at Level I involves comprehensive measurement of the major areas of academic achievement (e.g., reading, writing, math, oral language). Noteworthy is the fact that a finding of low academic achievement is not sufficient for SLD identification because this condition alone may be present for a variety of reasons, only one of which is SLD.

The academic areas that are generally assessed at this level are math calculation, math reasoning, basic reading skills, reading fluency, reading comprehension, written expression, lis-

Table 6 Flanagan and colleagues' dual/discrepancy consistency (DD/C) operational definition of SLD

Level	Nature of SLD[1]	Focus of evaluation	Examples of evaluation methods and data sources	Criteria for SLD	SLD classification and eligibility
I	Difficulties in one or more areas of academic achievement, including (but not limited to)[2] Basic Reading Skill, Reading Comprehension, Reading Fluency, Oral Expression, Listening Comprehension, Written Expression, Math Calculation, Math Problem-Solving	**Academic achievement**: Performance in specific academic skills (e.g., *Grw*, *Gq*, *Gc*)	Response to quality instruction and intervention via progress monitoring, performance on norm-referenced, standardized achievement tests, evaluation of work samples, obser vations of academic performance, teacher/parent/student interview, history of academic performance, data from other members of Multidisciplinary Team (MDT) (e.g., speech-language pathologist, interventionist, reading specialist)	Performance in one or more academic areas is *weak or deficient*[3] (despite attempts at delivering quality instruction) as evidenced by converging data sources	Necessary Sufficient for SLD identification
II	SLD does not include a learning problem that is the result of visual, hearing, or motor disabilities; of intellectual disability; of social or emotional disturbance; or of environmental, educational, cultural, or economic disadvantage	**Exclusionary factors**: Identification of potential primary causes of academic skill weaknesses or deficits, including intellectual disability, cultural or linguistic difference, sensory impairment, insufficient instruction or opportunity to learn, organic or physical health factors, social/emotional or psychological disturbance	Data from the methods and sources listed at Levels I and III. Behavior Rating Scales; medical records; prior evaluations; interviews with current or past counselors, psychiatrists, etc	Performance is not *primarily* attributed to these exclusionary factors, although one or more of them may contribute to learning difficulties	
III	A disorder in one or more of the basic psychological and/or neuropsychological processes involved in understanding or in using language, spoken or written; such disorders are presumed to originate from central nervous system dysfunction	**Cognitive abilities and processes**: Performance in cognitive abilities (e.g., *Gc*, *Gf*, *Gv*, *Ga*, *Glr*, *Gsm*, *Gs*), specific neuropsychological processes (e.g., attention, executive functioning, orthographic processing; RAN; RAS), and learning efficiency (e.g., associative memory; free recall memory)	Performance on norm-referenced tests, evaluation of work samples, observations of cognitive performance, task analysis, testing limits, teacher/parent/student interview, history of academic performance, records review	Performance in one or more cognitive abilities and/or neuropsychological processes (related to academic skill deficiency) is *weak or deficient*[3] as evidenced by converging data sources	
IV	The specific learning disability is a discrete condition differentiated from generalized learning failure by average or better cognitive ability and a learning skill profile exhibiting significant variability indicating processing areas of strength and weakness	**Pattern of strengths and weaknesses marked by a dual-discrepancy/consistency (DD-C)**: Determination of whether academic skill weaknesses or deficits are related to specific cognitive area(s) of weakness or deficit; pattern of data reflects a below average aptitude-achievement *consistency* with otherwise average or better ability to think and reason	Data gathered at all previous levels as well as any additional data following a review of initial evaluation results (e.g., data gathered for the purpose of hypothesis testing; data gathered via demand analysis and limits testing)	Circumscribed below average aptitude-achievement *consistency* (i.e., related cognitive processes and academic skills are generally about 1SD below the mean or lower); circumscribed ability-achievement and ability-cognitive aptitude *discrepancies*, with cognitive areas of strength represented by standard scores that are generally ≥90 ; clinical judgment supports the impression that the student's overall ability to think and reason will enable him or her to benefit from tailored or specialized instruction/intervention, compensatory strategies, and accommodations, such that his or her performance rate and level will likely approximate more typically achieving, non-disabled peers	

(continued)

Table 6 (continued)

Level	Nature of SLD[1]	Focus of evaluation	Examples of evaluation methods and data sources	Criteria for SLD	SLD classification and eligibility
V	Specific learning disability has an adverse impact on educational performance	**Special education eligibility**[4]: Determination of Least Restrictive Environment (LRE) for delivery of instruction and educational resources	Data from all previous levels and MDT meeting, including parents	Student demonstrates significant difficulties in daily academic activities that cannot be remediated, accommodated, or otherwise compensated for *without* the assistance of individualized special education services	Necessary for special education eligibility

[1]This column includes concepts inherent in the federal definition (IDEA, 2004), Kavale, Spaulding, and Beam's (2009) definition, Harrison and Holmes' (2012) consensus definition, and other prominent definitions of SLD (see Sotelo-Dynega et al. 2011 for a summary). Thus, all prominent SLD markers are included in this column.

[2]Poor spelling with adequate ability to express ideas in writing is often typical of dyslexia and/or dysgraphia. Even though IDEA 2004 includes only the broad category of written expression, poor spelling and handwriting are often symptomatic of a specific writing disability and should not be ignored (McGrew & Wendling 2010)

[3]Weak performance is typically associated with standard scores in the 85–89 range, whereas deficient performance is often associated with standard scores that are around 1SD below the mean or lower. Interpretations of weak or deficient performance based on standard scores that fall in these ranges are bolstered when they have ecological validity (e.g., when there is evidence that the abilities or processes identified as weak or deficient manifest in everyday classroom activities that require these abilities and processes)

[4]The major specific learning disability may be accompanied by secondary learning difficulties that also may be considered when planning the more intensive, individualized special education instruction directed at the primary problem.

tening comprehension, and oral expression. Most of the abilities measured at Level I represent an individual's stores of acquired knowledge. These specific knowledge bases (e.g., quantitative knowledge, reading and writing ability, vocabulary knowledge, and general domain-specific knowledge) develop largely as a function of formal instruction, schooling, and educationally related experiences (Carroll, 1993; Schneider & McGrew, 2012). Typically, these eight areas of academic achievement are measured using standardized, norm-referenced tests. Nevertheless, it is important to realize that data on academic performance should come from multiple sources (see Table 6, Level I, column 4), such as clinical observations, work samples, parent or teacher report, and so forth. Following the collection of data on academic performance, it is necessary to determine whether the student has a weakness or deficit in one or more specific academic abilities.

A *weakness* is typically defined as performance on standardized, norm-referenced tests that falls *below average* (where average is defined as standard scores between 90 and 109 [inclusive], based on a scale having a mean of 100 and standard deviation of 15). Therefore, a weakness is associated with standard scores of 85–89. Interpreting scores in this very narrow range usually requires clinical judgment, as abilities associated with these scores may or may not pose significant problems for the individual. A *deficit* is often defined as performance on norm-referenced tests that falls greater than one standard deviation below the mean (i.e., standard scores <85).

Determining whether a student has a weakness or deficit usually involves making normative-based comparisons of the student's performance against a representative sample of same-age or same-grade peers from the general population. If weaknesses or deficits in the student's academic performance are not found, then the issue of SLD may be moot because such weaknesses are a necessary component for diagnosis. When weaknesses or deficits in academic performance are found (irrespective of the particular methods by which they are identified), the process advances to Level II.

Level II: Exclusionary factors—evaluation of potential primary and contributory causes of academic skill weaknesses or deficits

Level II involves evaluating whether any documented weaknesses or deficits found through Level I evaluation are or are not primarily the result of factors that may be, for example, largely external to the individual, noncognitive in nature, or the result of a condition other than SLD. Because there can be many reasons for weak or deficient academic performance, causal links to SLD should not be ascribed prematurely. Instead, reasonable hypotheses related to other potential causes should be developed. For example, cultural and linguistic differences are two common factors that can affect both test performance and academic skill acquisition adversely and result in achievement data that appear to suggest SLD. In addition, lack of motivation, social/emotional disturbance, performance anxiety, psychiatric disorders, sensory impairments, intellectual disability, and medical conditions (e.g., hearing or vision problems) also need to be ruled out as potential explanatory correlates to any weaknesses or deficits identified at Level I.

Note that because the process of SLD determination does not necessarily occur in a strict linear fashion, evaluations at Levels I and II often take place concurrently, as data from Level II is often necessary to understand performance at Level I. The circular arrows between Levels I and II in Table 6 are meant to illustrate the fact that interpretations and decisions that are based on data gathered at Level I may need to be informed by data gathered at Level II. Ultimately, at Level II, the practitioner must judge the extent to which any factors other than cognitive impairment can be considered the *primary* reason for academic performance difficulties. If performance cannot be attributed primarily to other factors, then the second criterion necessary for establishing SLD according to the operational definition is met, and assessment may continue to the next level.

Level III: Weaknesses or deficits in cognitive abilities or neuropsychological processes

The criterion at this level is similar to the one specified in Level I except that it is evaluated with data from an assessment of cognitive abilities and neuropsychological processes (refer to Ortiz, Flanagan, & Alfonso, 2015, for a comprehensive list of standardized tests that can be used to measure the many cognitive abilities and neuropsychological processes implicated in academic achievement). Analysis of data generated from the administration of standardized tests represents the most common method available by which cognitive and neuropsychological functioning in children is evaluated. However, other types of information and data are relevant to cognitive performance (see Table 6, Level III, column 4). Practitioners should actively seek out and gather data from other sources as a means of providing corroborating evidence for standardized test findings. For example, when test findings are found to be consistent with the student's performance in the classroom, a greater degree of confidence may be placed on test performance because interpretations of cognitive deficiency have ecological validity—an important condition for any diagnostic process (Flanagan et al., 2013).

A particularly salient aspect of the DD/C definition is that a weakness or deficit in one or more cognitive abilities or processes underlies difficulties in academic performance and skill development. Because research demonstrates that the relationship between the cognitive dysfunction and the manifest learning problems is causal in nature (e.g., Fletcher, Taylor, Levin, & Satz, 1995; Hale et al., 2010; Hale & Fiorello, 2004), data analysis at this level should seek to ensure that identified weaknesses or deficits on cognitive and neuropsychological tests bear an empirical relationship to those weaknesses or deficits on achievement tests identified previously. It is this very notion that makes it necessary to draw upon cognitive and neuropsychological theory and research (e.g., Flanagan, Ortiz, Alfonso, & Mascolo, 2006; McGrew & Wendling, 2010; Schneider & McGrew, 2012 to inform methods of SLD identification and increase the reliability and validity of the SLD diagnostic process. Theory and its related research base not only specify the relevant constructs that ought to be measured at Levels I and III of the DD/C definition, but also predict the manner in which they are related. Furthermore, application of current theory and research provides a substantive empirical foundation from which interpretations and conclusions may be drawn.

Because new data are gathered at Level III, it is likely possible to evaluate the exclusionary factors that could not be evaluated earlier (e.g., intellectual disability). The circular arrows between Levels II and III in Table 6 are meant to illustrate the fact that interpretations and decisions that are based on data gathered at Level III may need to be informed by data gathered at Level II. Likewise, data gathered at Level III are often necessary to rule out (or in) one or more exclusionary factors listed at Level II in Table 6. Reliable and valid identification of SLD depends in part on being able to understand academic performance (Level I), cognitive performance (Level III), and the many factors that may facilitate or inhibit such performances (Level II).

Level IV: A pattern of strengths and weaknesses characterized by a dual discrepancy/consistency (DD/C)

This level of evaluation revolves around a theory- and research-guided examination of performance across academic skills, cognitive abilities, and neuropsychological processes to determine whether the student's pattern of strengths and weaknesses is consistent with the SLD construct. When the process of SLD identification has reached this level, three necessary criteria for SLD identification have already been met: (a) one or more weaknesses or deficits in academic performance, (b) one or more weaknesses or deficits in cognitive abilities and/or neuropsychological processes, and (c) exclusionary factors determined not to be the primary causes of the academic and cognitive weaknesses or deficits. What has not been determined, however, is whether the pattern of results is marked by an empirical or ecologically valid relationship between the identified cognitive and academic weaknesses, whether the individual displays gen-

erally average ability to think and reason, whether the individual's learning difficulty is domain-specific, and whether the individual's under-achievement is unexpected. These four additional SLD markers, depicted in Fig. 1, are discussed below.

Relationship between cognitive and academic weaknesses

A student with an SLD possesses specific cognitive and academic weaknesses or deficits. When these weaknesses are related empirically or when there is an ecologically valid relationship between them, the relationship is referred to as a *below-average cognitive aptitude-achievement consistency* (Flanagan et al., 2006; Flanagan, Ortiz, Alfonso, & Mascolo, 2002). This consistency is a necessary marker for SLD because SLD is caused by cognitive processing weaknesses or deficits (e.g., Hale et al., 2010). Thus, there is a need to understand and identify the underlying cognitive ability or processing problems that contribute significantly to the individual's academic difficulties.

The term *cognitive aptitude* within the context of the DD/C definition represents the specific cognitive ability or neuropsychological processing weaknesses or deficits that are empirically related to the academic skill weaknesses or deficits. For example, if a student's basic reading skill deficit is related to cognitive deficits in phonological processing (a narrow auditory processing [*Ga*] ability) and rapid automatic naming (a narrow long-term storage and retrieval [*Glr*] ability), then the combination of below-average narrow *Ga* and *Glr* performances represents his or her *cognitive aptitude for basic reading*. Moreover, the finding of below-average performance on measures of phonological processing, rapid automatic naming, and basic reading skill represents a *below-average cognitive aptitude-achievement consistency*.

The concept of cognitive aptitude-achievement consistency reflects the notion that there are documented relationships between specific cognitive abilities and processes and specific academic skills. Therefore, the finding of below-average performance in related cognitive and academic areas is an important marker for SLD. The horizontal alignment of the bottom two ovals in Fig. 1 demonstrates that the identified areas of cognitive and academic weaknesses or deficits are related.

The criteria for establishing a below-average cognitive aptitude-achievement *consistency* in the DD/C definition are as follows:

- "Below-average" performance (i.e., less than 89 and more typically at least a standard deviation or more below the mean) in the specific cognitive *and* academic areas that are considered weaknesses or deficits
- Either evidence of an empirical relationship between the specific cognitive and academic areas or an ecologically valid relationship between these areas. To validate the relation between the cognitive and academic areas of weakness, practitioners can document the manner in which the cognitive weakness or deficit manifests in academic difficulties in the classroom (see Flanagan et al., 2013 for more information).

Generally average ability to think and reason (g)

A specific learning disability is just that—*specific*. It is not general. As such, the below-average cognitive aptitude-achievement consistency ought to be circumscribed and represents a very different level of functioning as compared to the individual's cognitive capabilities or strengths in other areas. Indeed, the notion that individuals with SLD are of generally average or better overall cognitive ability is well known and has been written about for decades (e.g., see Bateman, 1965). In fact, the earliest recorded definitions of learning disability were developed by clinicians based on their observations of individuals who experienced considerable difficulties with the acquisition of basic academic skills, despite their average or above-average general intelligence. According to Monroe (1939 cf. Mather, 2011, p. 23) "The children of superior mental capacity who fail to learn to read are, of course, spectacular examples of specific reading difficulty since

they have such obvious abilities in other fields". Indeed, "all historical approaches to SLD *emphasize the spared or intact abilities* that stand in stark contrast to the deficient abilities" (Kaufman, 2008, pp. 7–8, emphasis added).

The criterion of overall average or better ability in cognitive domains is necessary for differential diagnosis. By failing to differentially diagnose SLD from other conditions that impede learning, such as intellectual disability and overall below-average ability to learn and achieve, the SLD construct loses its meaning, and there is a tendency (albeit well intentioned) to accept anyone under the SLD rubric who has learning difficulties for reasons other than specific cognitive dysfunction (e.g., Berninger, 2011; Kavale et al., 2008; Kavale & Flanagan, 2007; Reynolds & Shaywitz, 2009a, 2009b). While the underlying causes of the learning difficulties of all students who struggle academically *should be investigated and addressed*, an accurate SLD diagnosis is necessary because it informs instruction.

While it may be some time before consensus is reached on what constitutes "average or better ability" for the purpose of SLD identification, a student with SLD, *generally speaking*, ought to be able to perform academically at a level that approximates that of his or her more typically achieving peers when provided with individualized instruction as well as appropriate accommodations, curricular modifications, and the like. In addition, in order for a student with SLD to reach performances (in terms of both rate of learning and level of achievement) that approximate his or her non-disabled peers, he or she must possess the ability to learn compensatory strategies and apply them independently, which often requires higher-level thinking and reasoning, including intact executive processes (McCloskey, Perkins, & Van Divner, 2009). Individuals with SLD can overcome or bypass their disability under certain circumstances. Special education provides (or ought to provide) the mechanism to assist the student with SLD in bypassing his or her processing deficits through individualized instruction and intervention and through the provision of appropriate curricular and instructional modifications, accommodations, and compensatory strategies. However, to succeed in bypassing or minimizing the effects of an individual's SLD in the educational setting to the point of achieving at or close to grade level, overall average cognitive or intellectual ability is very likely requisite (see Fuchs & Young, 2006, for a discussion of the mediating effects of IQ on response to intervention).

Of course, it is important to understand that while at least average overall cognitive ability is likely necessary for a student with SLD to be successful at overcoming or minimizing his or her cognitive processing deficits, many other factors may facilitate or inhibit academic performance, including motivation, effort, determination, perseverance, familial support, quality of individualized instruction, student-teacher relationship, and existence of comorbid conditions (see Flanagan et al., 2013 for a discussion).

Determining otherwise average or better ability to think and reason (or average or better *g*) for a student who has a below-average cognitive aptitude-achievement consistency is not a straightforward task; however, there is no agreed upon method for doing so. The main difficulty in determining whether or not an individual with *specific* cognitive weaknesses has otherwise average overall ability or g is that current intelligence and cognitive ability batteries typically provide only one total test score. Moreover, the total test score is an aggregate of *all* (or nearly all) abilities and processes measured by the instrument. As such, in many instances, the student's specific cognitive weaknesses or deficits attenuate the total test score on these instruments, which often masks overall cognitive ability or capacity. Although intelligence and cognitive ability batteries have become more differentiated, offering a variety of specific cognitive ability composites, the manner in which they summarize overall intellectual or cognitive ability remains largely the same as that of their predecessors. Therefore, Flanagan and colleagues developed a program called the Pattern of Strengths and Weaknesses Analyzer (PSW-A) that generates a composite akin to a total test composite on an intelligence test but without the attenuating effects of the individual's cognitive weaknesses (Flanagan et al., 2013). The latest version of the PSW-A is now part of the Cross-

Battery Assessment Software System (X-BASS; Ortiz et al., 2015).

The PSW-A provides a g-value, which indicates the likelihood that the individual has at least average overall ability to think and reason (or average *g*), *particularly for the purpose of learning and performing academic, grade-level tasks*. However, the PSW-A also provides what has been called a "Facilitating Cognitive Composite" or FCC. The FCC is akin to the total test score yielded by current intelligence and cognitive ability batteries. The FCC is an aggregate of the individual's intact abilities only. Therefore, the FCC is intended to provide an estimate of overall intellectual/cognitive capacity in the absence of the potential attenuating effects of those specific cognitive abilities or processes in which the individual performed poorly.

Even if it is determined that an individual has overall average ability to think and reason (top oval in Fig. 1) along with a below-average cognitive aptitude-achievement consistency (two bottom ovals in Fig. 1), these findings alone do not satisfy the criteria for a pattern of strengths and weaknesses consistent with the SLD construct. This is because it is not yet clear whether the differences between the score representing overall ability and those representing specific cognitive and academic weaknesses or deficits are significant, meaning that such differences are reliable differences (i.e., not due to chance). Moreover, it is not yet clear whether the cognitive area of weakness is domain-specific and whether the academic area of weakness (or underachievement) is unexpected.

Cognitive deficits that interfere with learning are domain-specific

SLD has been described as a condition that is domain-specific. That is, areas of cognitive weakness or deficit are circumscribed, meaning that while they interfere with learning and achievement in a specific academic skill, they are not pervasive and do not affect all or nearly all areas of cognition. According to Stanovich (1993), "The key deficit must be a vertical faculty rather than a horizontal faculty—a domain-specific process rather than a process that operates across a variety of domains" (p. 279). It is rare to find an operational definition that specifies a criterion for determining that the condition is "domain-specific." Some suggest that this condition is supported by a statistically significant difference between an individual's overall (average or better) cognitive ability and a score representing the individual's cognitive area of weakness (e.g., Naglieri, 2011). However, a statistically significant difference between two scores means only that the difference is not due to chance; it does not provide information about the *rarity* or infrequency of the difference in the general population. Some statistically significant differences are common in the general population; others are not. Therefore, to determine if the cognitive area that was identified as a weakness by the evaluator is domain-specific, the difference between the individual's actual and expected performance in this area should be uncommon in the general population (i.e., should occur in <5% of the population).

In the PSW-A program, an estimate of overall cognitive ability (e.g., FCC or other total test score entered by the practitioner) is used to predict where an individual ought to perform in the cognitive area that was identified as a weakness. When the difference between actual and predicted specific cognitive performance is found to be rare or uncommon (occurring in less than 5% of the population), the criterion for "domain-specific" is met.

Academic area of weakness or deficit (underachievement) is unexpected

The traditional ability-achievement discrepancy analysis was used to determine if an individual's underachievement (e.g., reading difficulty) was unexpected (i.e., the individual's achievement was not at a level that was commensurate with his or her overall cognitive ability). There are two common methods for determining unexpected underachievement using the traditional ability-achievement discrepancy approach—the simple-difference method and the predicted-difference method (see Flanagan et al., 2013 for details).

A particularly salient problem with the ability-achievement discrepancy approach, regardless of method, was that a total test score from an intel-

ligence test (e.g., FSIQ) was used as the estimate of overall ability. However, for individuals with SLD, the total test score was often attenuated by one or more specific cognitive weaknesses or deficits and therefore may have provided an unfair or biased estimate of the individual's actual overall intellectual capacity. Furthermore, when the total test score was attenuated by specific cognitive weaknesses or deficits, the ability-achievement discrepancy was often not statistically significant, which resulted in denying the student much-needed academic interventions and special education services (e.g., Aaron, 1997; Hale et al., 2011). As such, for the purpose of conducting an ability-achievement discrepancy analysis, we offer an ability estimate based only on the individual's intact functioning (i.e., FCC).

The FCC is used in a regression-based formula (predicted-difference method) to determine unexpected underachievement. Specifically, the PSW-A program uses the FCC to predict an achievement score, and the predicted and actual achievement scores are then compared. The finding of an uncommon difference (occurrence in less than 5 % of the general population) between the predicted and actual achievement scores is evidence of unexpected underachievement (see Flanagan et al., 2013 and Ortiz et al., 2015 for more details).

In sum, an individual's scores from a comprehensive evaluation are evaluated at this level of our operational definition (Level IV) to determine if they represent a pattern of strengths and weaknesses that is consistent with SLD. The pattern that suggests SLD is characterized by a below-average cognitive aptitude-achievement consistency that is concomitant with two discrepancies—one that defines SLD as a domain-specific condition and one that further defines SLD as unexpected underachievement. Thus, a DD/C pattern of strengths and weaknesses is the overarching diagnostic marker of SLD in this operational definition of SLD.

Level V: SLD adversely impacts educational performance

When a student meets criteria for SLD (i.e., when criteria for Levels I through IV are met), it is typically obvious that the student has difficulties in daily academic activities that need to be addressed. Nevertheless, the purpose of this final level of evaluation is to determine whether the identified condition (i.e., SLD) impairs academic functioning to such an extent that special education services are warranted.

Students with SLD require individualized instruction, accommodations, and curricular modifications to varying degrees based on such factors as the nature of the academic setting, the severity of the learning disability, the specific cognitive and academic abilities and processes that are impaired, the developmental level of the student, the extent to which the student is able to compensate for specific weaknesses, the manner in which instruction is delivered, the content being taught, and so forth (see Mascolo et al., 2014 for a comprehensive review). As such, some students with SLD may not require special education services, such as when their academic needs can be met through classroom-based accommodations (e.g., use of a word bank during writing tasks, extended time on tests) and differentiated instructions (e.g., allowing a student with a writing deficit to record reflections on a reading passage and transcribe them outside of the classroom prior to submitting a written product). Other students with SLD may require both classroom-based accommodations *and* special education services. And in cases where a student with SLD is substantially impaired in the general education setting, a self-contained special education classroom may be required to meet his or her academic needs adequately (see Mascolo et al., 2014).

There are two possible questions at Level V that must be answered by the multidisciplinary team (MDT). First, *can the student's academic difficulties be remediated, accommodated, or otherwise compensated for without the assistance of individualized special education services?* If the answer is *yes*, then services (e.g., accommodations, curricular modifications) may be provided, and their effectiveness monitored, in the general education setting. If the answer is *no*, then the MDT must answer the question, *what is the nature and extent of special education services that will be provided to the student?* In answering this question, the MDT must ensure

that individualized instruction and educational resources are provided to the student in the least restrictive environment (LRE).

Summary of the DD/C Operational Definition of SLD

The DD/C definition is a research-based framework for the practice of SLD identification/diagnosis and will likely be most effective when it is informed continually by cognitive and neuropsychological theory and research that supports (a) the identification and measurement of constructs associated with SLD, (b) the relationship between academic skills and cognitive abilities and processes, and (c) a defensible method of interpreting results. Of the many important components of the definition, the central focus revolved around specification of criteria at the various levels of evaluation that should be met to establish the presence of SLD. These criteria included identification of empirically related academic and cognitive abilities and processes in the below-average range as compared to same-age peers from the general population, determination that exclusionary factors are not the primary cause of the identified academic and cognitive deficits, and identification of a pattern of performance that is domain-specific and consistent with unexpected underachievement, including identification of at least average overall cognitive ability when the attenuating effects of cognitive weakness(es) are removed.

When the criteria specified at each level of the operational definition are met, it may be concluded that the data gathered are sufficient to support a diagnosis of SLD. Because the conditions outlined in Table 6 are based on current SLD research, the DD/C operational definition presented here represents progress toward a more complete and defensible approach to the process of evaluating SLD than previous methods.

Conclusion

While classification systems for SLD are in existence (e.g., DSM-5), they currently suffer from the same issues as that of many of their predecessors. That is, they lack clear guidelines for effectively operationalizing and identifying SLD (McDonough, Flanagan, Sy, & Alfonso, in press). While in the United States, the vagueness and ambiguity of the major classification systems for SLD was addressed via the creation of federal regulations that more specifically detailed how an SLD should be identified, a similar set of regulations is not currently in existence in Australia, thus contributing to the great variety in SLD definitions and identification practices currently employed around the nation by psychologists both inside and outside of schools (Greaves, 2000; Meteyard & Gilmore, 2015; Rivalland, 2000; Rohl & Rivalland, 2002).

However, through the extensive work of Flanagan and colleagues (Flanagan et al., 2002, 2006, 2010, 2013; Flanagan & Alfonso, 2011; Ortiz et al., 2015), an operationalized method of SLD identification that is based on empirical research and theory is readily available and easily accessible. While Australian psychologists appear to favor an RTI approach to SLD conceptualization and identification (Meteyard & Gilmore, 2015), and this approach has many strengths which were outlined above, RTI is insufficient in its own right for accurately identifying SLD and differentiating it from general learning difficulties. Thus comprehensive cognitive and academic achievement assessment, interpreted via a pattern of strengths and weaknesses framework such as that provided by the DD/C operational definition of SLD outlined in this chapter, is needed once pre-referral intervention activities have been conducted with little or no success. Such an approach allows not only for increased accuracy in identification but also greatly informs intervention via the identification of specific cognitive and academic weaknesses, which provides the capacity for individualized intervention via the provision of appropriate instruction, accommodations, compensatory strategies, and curricular modifications. Given that students with SLD are at risk for a number of deleterious outcomes, such as low academic achievement, school drop-out, and higher rates of mental health issues (Maag & Reid, 2006; Nelson & Harwood, 2011; Svetaz, Ireland, & Blum, 2000), it is paramount that evidence-based identification procedures are applied by Australian

school psychologists since such assessment is the gateway to these students receiving the academic and emotional support they require.

Test Yourself Quiz

1. There are many definitions of SLD. What are the common features of SLD that are shared by most definitions?
2. When assessing for a SLD, what other health and education professionals may be involved in adding information to your understanding of whether or not a SLD exists? What type of information would you seek and from whom?
3. Describe the evidence-based assessment tools available to support school psychologists assessing students for a SLD?

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Evidence-Based Assessment and Interventions for Problems with Reading in School Psychology

Mandy Nayton, Emma Leah Hettrich, Stephanie Samar, and Camelia Wilkinson

Introduction

Reading is a complex skill that takes years of instruction and practice to acquire. The act of reading itself involves a complex set of cognitive capacities including specific attentional, perceptual, conceptual, linguistic, cognitive and motor processes only fully integrated once reading becomes automatic (Dehaene, 2009). Although many children learn to read automatically and fluently, a significant number struggle both in the early stages of reading development and throughout their lives. This chapter aims to address some of the questions related to reading difficulties and, more specifically, reading disabilities. This will include a historical overview of reading disabilities, diagnostic criteria and tools, prevalence rates and issues related to reading throughout Australia and an overview of current interventions.

The most recent 'Adult Literacy and Lifeskills Survey' conducted by the Australian Bureau of Statistics found that 52 % of individuals ages 15–19 years had attained skill scores lower than the minimum required for individuals to meet the literacy demands of everyday work (Australian Bureau of Statistics (ABS), 2006). Some of the factors contributing to poor reading outcomes include: low SES background, high absenteeism, home languages other than English, family beliefs and background and inadequate instruction (Arnold & Doctoroff, 2003; Bradley & Corwyn, 2002; Phillips, 2005). Current research also shows that reading skills are highly heritable and that similarities between family members in reading ability are largely accounted for by genetic factors (Snowling, Muter, & Carroll, 2007; van Bergen, de Jong, Plakas, Maassen, & van der Leij, 2012). Furthermore, a proportion of children struggle to learn to read despite adequate instruction and opportunity due to the presence of a reading disability (Moats & Dakin, 2007; Shaywitz, 2008). Other risk factors include poor phonological awareness skills, (i.e. the capacity to recognise word and syllable boundaries, identify and produce rhyme, use alliteration and isolate and manipulate individual speech sounds),

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poor phonological memory (i.e. the capacity to store and retrieve language from short and long-term memory) and poor alphabetic knowledge (Dehaene, 2009; Fletcher, Lyon, Fuchs, & Barnes, 2007; Gillon, 2004; Henry, 2012).

The view that some students experience extraordinary levels of difficulty developing accurate and fluent reading was initially documented over 1000 years ago. Pringle-Morgan (1896) described the case of a 14-year-old boy named Percy who struggled with reading and spelling but did well in other academic areas. He was unable to find any causative factors to explain Percy's difficulties and, as a consequence, proposed that they were the result of a congenital defect that made the storage and retrieval of visual impressions unusually difficult. In 1907, James Hinshelwood extended this work documenting four cases of 'congenital word blindness' in the one family in an article in the British Medical Journal (Hinshelwood, 1907). For both Pringle-Morgan and Hinshelwood, the causative factor for these cases was linked specifically to visual processing.

In the 1920s, Samuel T. Orton wrote extensively on reading difficulties and proposed the term strephosymbolia (literally meaning 'twisted symbols') (Vellutino, 1979). His view was that reading difficulties were caused by a perceptual disorder in which individuals perceived visual symbols in reverse (e.g. 'b' for 'd' and 'war' for 'raw'). He suggested that this resulted from a developmental delay in establishing hemispheric dominance (Vellutino, 1979). Orton's theory, in addition to other visual theories, dominated the field of reading disability practice for over 50 years (Fletcher et al., 2007). Essentially, the view was that developmental reading disabilities could be best explained by a visual system dysfunction (Vellutino & Fletcher, 2005). More recently, however, research indicates that visual memory, spatial orientation and visual sequencing in the processing of letters and words do not differ between poor readers and typically developing readers once linguistic factors are controlled for (Vellutino, Fletcher, Snowling, & Scanlon, 2004). These findings support that visual abilities cannot be used to reliably distinguish between dyslexic and typically developing readers. Perhaps more important is that interventions designed for visual defects have not improved the word recognition difficulties related to reading disability (Iovino, Fletcher, Breitmeyer, & Foorman, 1998).

A number of non-visual factors have been found to predict and correlate with the development of reading disabilities. Evidence shows that most reading disabilities can be traced to language-based deficits, precisely poorly specified phonological representations (Dehaene, 2009; Moats & Dakin, 2007). Students with reading disabilities frequently have difficulty acquiring phonological skills such as phonological awareness, phonological retrieval, alphabetic knowledge and phonic (phoneme-grapheme) knowledge and, in addition, may present with poor orthographic awareness (Brooks, Berninger, & Abbott, 2011; Gathercole & Baddeley, 1990; Gillon, 2004; Snowling, 2012; Snowling & Hulme, 2013; Vellutino, 1979).

Defining Reading Disability or Dyslexia

Reading disabilities and dyslexia are often used interchangeably. However, it is important to note that dyslexia is only one presentation of a reading disability. The definition of dyslexia favoured by the International Dyslexia Association (IDA), the Australian Federation of SPELD Associations (AUSPELD) and numerous highly regarded reading scientists (Fletcher et al., 2007) is that dyslexia is a specific learning disability characterised by difficulties with accurate and/or fluent word recognition and by poor spelling and decoding abilities. It is neurobiological in origin and difficulties with dyslexia typically result from a deficit in the phonological component of language that is often unexpected in relation to other cognitive abilities, adequate intelligence and effective classroom instruction. Secondary consequences may include problems in reading comprehension and reduced reading experience that can impede growth of vocabulary and background knowledge (Lyon, Shaywitz, & Shaywitz, 2003). Problems with spelling and writing are common for these students. Many individuals with dyslexia also experience difficulties with working memory, attention and organisational skills (Alloway, 2010; Henry, 2012).

DSM-5 definition of reading disabilities. In the Diagnostic and Statistical Manual, Fifth Edition (DSM-5; American Psychiatric Association (APA), 2013) a reading disability or disorder is classified as 'specific learning disorder with impairment in reading'. Specific patterns of learning difficulties are required to be present for a diagnosis to be gained, including inaccurate or slow and effortful word reading and/or difficulty understanding the meaning of what is read. Within the DSM-5 (APA, 2013), the term dyslexia is described as referring to as 'A pattern of learning difficulties characterized by problems with accurate or fluent word recognition, poor decoding, and poor spelling abilities' (APA, 2013, p. 67). The presence of these symptoms must occur within a set of specific diagnostic criteria within the DSM-5, all of which will be discussed later in this chapter.

Prevalence rates of reading disabilities. Learning difficulties is a term used to describe the generic group of students (20–25 %) who struggle to achieve academically due to a range of causative factors (Skues & Cuningham, 2011). Of these students, many struggle to acquire a reasonable level of literacy. The most recent OECD research (PISA—Program for International Student Assessment) found that almost 41 % of 15-year-old boys and 29 % of 15-year-old girls in Australia had literacy levels at or below the lowest levels of functional literacy (Thomson, De Bortoli, & Buckley, 2013). The terms learning disability or learning disorder are used to describe the small group of students who have persistent and enduring difficulties in a specific academic domain—despite high-quality instruction, evidence-based intervention and appropriate support (APA, 2013; Bradley, Daneilson, & Hallahan, 2002).

Establishing a precise prevalence rate of learning disability in Australia has been difficult due to problems with definition and identification. It is estimated that the number of students in Australia with learning disabilities or learning disorders is between 3 and 5 % of the total student population (Skues & Cuningham, 2011); however, this estimate varies across states and territories due to differing policies and procedures. In Western Australia, approximately 1.5 % of students in their final year of schooling apply for special examination arrangements as a consequence of a learning disability (School Curriculum & Standards Authority (SCSA), 2015). This figure is consistent with reports provided by other jurisdictions, although the numbers of approved applications appears to be less than 1 % of the total cohort sitting exams (Victorian Curriculum & Assessments Authority (VCAA), 2014). This suggests that a significant number of students with learning disorders are either not applying for special arrangements or are not sitting the public examinations in year 12. For the first time, the Australian government is conducting a large-scale collection of student disability data Australia-wide in order to establish a more reliable national estimate of prevalence, and it is anticipated that the results will be available in 2016 (Education Council, 2014).

It is widely accepted that four out of five students with learning disabilities have a reading disability, making dyslexia the most identified and well-known learning disability within classrooms (Shaywitz, 2008). It is approximated that there is at least one child within every Australian classroom with dyslexia and yet many of these students have not been identified, diagnosed or provided with research-based interventions (Elkins, 2007); all factors that potentially cause significant disadvantage during their school years and beyond. The reason for this under-identification is thought to be due to the prevailing views held throughout the Australian education system about the development of reading skills and the very existence of learning disabilities. It is hoped that with changes occurring in both pre-service teacher training courses (Teacher Education Ministerial Advisory Group (TEMAG), 2015) and the Australian Curriculum (ACARA, 2015), this will improve.

How Is a Reading Disability Diagnosed?

Historically, there has been a great deal of debate over the methods used to diagnose dyslexia and learning disabilities in general, as well as the

associated recommendations for intervention made as a consequence of diagnosis. Until recently, the most frequently adopted approach to reading disability identification was the 'discrepancy model' which essentially defined a reading disability as a significant discrepancy between a student's measured intelligence and his/her actual level of achievement in reading accuracy, fluency and comprehension. This discrepancy between anticipated results, based on a student's cognitive ability, and their actual results, based on standardised achievement tests, was viewed as an indication of a reading disability (Fletcher et al., 2007).

However, there were, and continue to be, many criticisms of this approach. Firstly, it operates as a 'wait-to-fail' method because it is unlikely that a significant discrepancy will be found prior to middle and upper primary (Brown-Chidsey & Steege, 2005). This means that essential intervention is delayed. Secondly, it can serve to discourage intervention because improvements achieved through sustained intervention may result in a reversal of diagnosis once a substantially significant 'discrepancy' is no longer evident which may lead to reduced support. Thirdly, the discrepancy calculation has been frequently found to vary from school to school, thereby resulting in students being identified against inconsistent criteria (Feifer, 2010; Flanagan & Alfonso, 2011).

In recent years, determining the impact of intervention on a student's reading development has been recognised as an important component of reading disability diagnosis. This is known as the response to intervention (RTI) approach (Fig. 1). An essential component of the revised diagnostic criteria in the DSM-5 is that students identified with a reading disability have failed to respond as expected to appropriate intervention (APA, 2013). The advantages of the RTI approach to reading disability diagnosis include earlier and more systematic introduction of intervention for all students struggling to acquire basic reading skills and promotion of high-quality instruction and evidence-based intervention across whole school communities (Feifer, 2010). As a consequence, it has the potential to reduce the number of students who present with reading difficulties as a result of poor instruction and/or curricula.

It does, however, remain important that in cases where students fail to make progress despite high-quality instruction and evidence-based intervention, an appropriate individual assessment is conducted. In most cases this will be a psychoeducational assessment, administered by a registered psychologist with experience in the field of education. The assessment should include both standardised psychological and academic achievement tests, enabling the psychologist to gather information detailing possible processing deficits, additional developmental disorders and/or other educationally relevant weaknesses that might serve as primary or additional barriers to a student's capacity to respond to otherwise appropriate interventions(s). In order to diagnose a reading disability, it is recommended that a combination of RTI and individual assessment be adopted, resulting in a more equitable, preventative and individualised approach (Fletcher et al., 2007).

Criteria for reading disability diagnosis. The DSM-5 guidelines for psychologists undertaking reading disability assessments state that specific learning disorders with impairment in reading (dyslexia) are diagnosed through a clinical review of an individual's developmental, medical, educational and family history, reports of test scores and teacher observations and response to academic interventions (APA, 2013). However, there are a number of concerns with the DSM-5 diagnostic criteria that may limit the identification of a reading disability in older student and adult populations and in culturally and ethnically diverse populations (Scanlon, 2013). There is also a narrow focus on academic performance with little focus on the effect of a student's difficulties on everyday functioning or how their specific learning disability relates to cognition and other aspects of functioning.

The specific DSM-5 diagnostic criteria for a reading disability can be summarised as follows: A pattern of difficulties learning and using academic skills in word reading accuracy, reading fluency and/or reading comprehension that appear during the school-age years are substantially below those expected for age (in the majority of

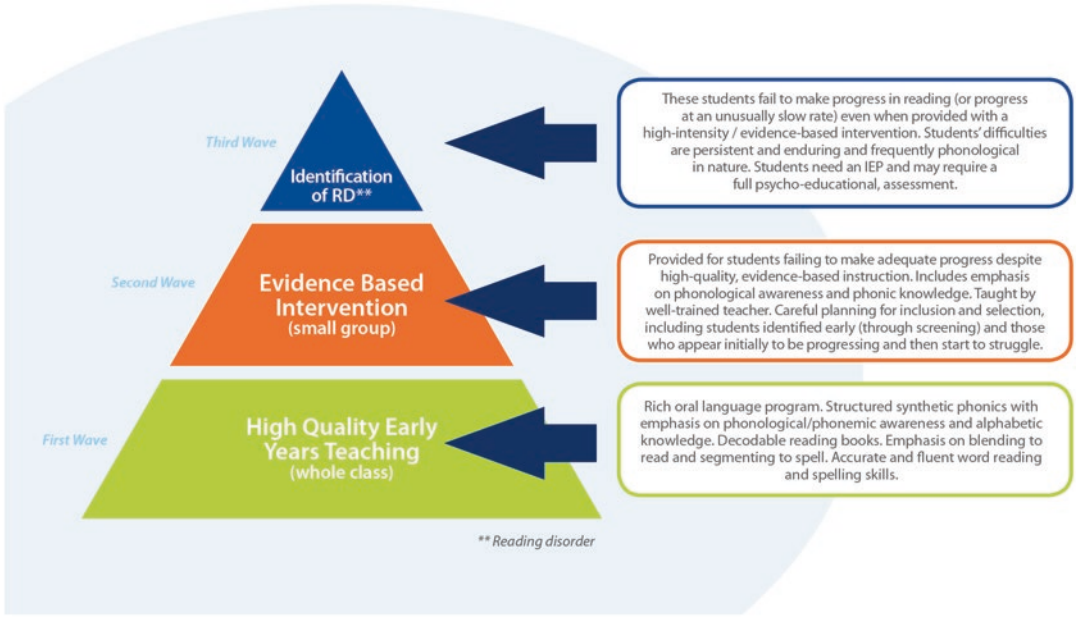

Fig. 1 Identifying students at risk of reading disability using the RTI model (adapted from a similar figure published in 'Understanding Learning Difficulties—A Practical Guide', p. 16, (DSF, 2014) and is used with permission)

cases), have the potential to significantly interfere with activities of daily living (including academic or occupational performance), and have persisted for at least 6 months, despite well-founded, targeted intervention (APA, 2013).

Although in most cases the affected academic skills will be well below average for age, it is appropriate to diagnose a specific learning disorder with impairment in reading in cases where average achievement is sustained only through high levels of effort and/or support. The academic deficits can be mild, moderate or severe and, although they begin during the school years, they may not become apparent until the demands on the academic skill exceed the individual's capacity (e.g. as in timed assessments, reading and comprehending lengthy texts). It is important to note that a specific learning disorder with impairment in reading will not be diagnosed in DSM-5 if the reading deficit is better accounted for by intellectual disability, uncorrected visual or auditory acuity, other mental or neurological disorders, psychosocial adversity, a lack of proficiency in the language of instruction or inadequate instruction (APA, 2013).

The DSM-5 model for diagnosis is essentially a hybrid model—incorporating both a comprehensive psychoeducational individual assessment and an evaluation of how successfully a student has responded to well-founded intervention. It is designed to provide valuable information that will assist with diagnosis and inform both remediation and ongoing support.

Specific Skill Deficits Associated with Reading Disabilities

The DSM-5 criteria for specific learning disorder - with impairment in reading includes: difficulties in word reading accuracy; reading fluency; and/or, reading comprehension. However, it is important to identify specific skill deficits (comprehension, fluency and accuracy) in each individual. This can assist in the identification and nature of a reading disability when used in conjunction with DSM-5 criteria as well as inform the implementation of targeted and effective remediation methods and the appropriate provision of accommodations.

Reading comprehension. Reading comprehension occurs across multiple levels of language, including the word level (lexical processes), sentence level (syntactic processes) and text level (literal and inferential level) (Perfetti, Landi, & Oakhill, 2005). It involves accurately reading words, understanding their meaning, connecting and making sense of the components of each sentence and integrating the meaning of successive sentences in a text. Readers build a mental representation of the text message utilising the available information and the reader's conceptual knowledge. Acquiring reading comprehension is learning to understand written language as well as acquiring an understanding of spoken language (listening comprehension) (Perfetti et al., 2005). When children first start learning to read, there is very little correlation between listening comprehension and reading comprehension, as a necessary prerequisite skill for reading comprehension is the capacity to read written material accurately and, to some extent, fluently. It is also dependent on a reasonable level of prior knowledge, including vocabulary and an awareness of syntax. In contrast, listening comprehension is largely dependent on prior knowledge, vocabulary acquisition and an awareness of syntax. When children begin the process of learning to read, the cognitive load associated with decoding each word is very high. Once students are able to read accurately and fluently, however, a very strong correlation between the two develops (Perfetti et al., 2005).

Furthermore, 'proficient reading comprehension assumes accurate and fluent decoding' (Fletcher et al., 2007, p. 184), and it is often assumed that students with a reading disability will experience difficulties in reading comprehension due to poor decoding or fluency skills. However, there is evidence to suggest that reading comprehension difficulties can occur in the absence of word recognition problems (Fletcher et al., 2007). Therefore, even in cases where students are reading accurately, it is important to assess reading comprehension as the functional impact of poor reading comprehension extends across all areas of the curriculum.

Reading fluency. As with reading comprehension, there is evidence to suggest that some students with a reading disability are characterised by a specific deficit in the area of reading fluency while their reading accuracy and/or comprehension remains intact (Fletcher et al., 2007). Those with a specific reading fluency problem lack automaticity of word and text reading. The National Institute of Child Health and Human Development's National Reading Panel defined fluency as 'the ability to read a text quickly, accurately, and with proper expression' (NICHD, 2000, p. 3–5). Accurate and fluent reading is an automatic process which requires little effort or conscious attention and therefore leaves cognitive resources available for the process of reading comprehension (Fletcher et al., 2007).

Fluency can be easily assessed through timed tests of reading single words, word lists, short sentences and passages of text. Assessment of fluency can become particularly important for older students and adults where educational attainment is often centred on the use of timed tests and examinations. Therefore, fluency assessment can lead to important recommendations and accommodations that will allow a student with a reading disability to demonstrate their knowledge, skills and understandings more effectively.

Reading accuracy. The most common academic skill deficit present in those identified with a reading disability is a difficulty in single-word decoding or reading accuracy (Brooks et al., 2011; Fletcher et al., 2007; Snowling, 2012). This deficit can have a significant impact on reading fluency and comprehension as they are unable to read text with a sufficient degree of automaticity. Their reading speed is likely to be diminished and their ability to accurately recall text or to allocate cognitive resources to comprehension is likely to be impaired. In addition, there is often the presence of a deficit in spelling accuracy (encoding) as both decoding and encoding rely on the same phonological processing skills.

The assessment of reading (and spelling) accuracy is central to the diagnosis of a reading disability and involves analysing a student's ability to accurately read (and spell) individual real words and nonsense words in both untimed and timed conditions, as well as to apply word recognition and encoding skills to sentences and passages of text.

Processing Weaknesses

Students with reading disabilities generally have difficulty processing language accurately and automatically, and many students have a weakness in working memory (Dehaene, 2009; Moats & Dakin, 2007; Snowling, 2012). Students who have dyslexia also tend to have difficulties processing speech (phonological processing) and may also struggle to process and recall the letter patterns used in written language, known as orthographic processing (Brooks et al., 2011).

Working memory. Working memory is the ability to hold information in mind and manipulate it as necessary for a brief period (Alloway, 2010; Gathercole, Pickering, Knight, & Stegmann, 2004). A student's working memory capacity depends on their age and innate abilities. Lower primary students are only able to hold, manipulate and recall a small number of items or 'chunks' of information (e.g. two or three items) whereas secondary students can deal with more (e.g. four or five items) (Henry, 2012). Working memory is highly correlated with both literacy and numeracy achievement levels and is resistant to change (Gathercole et al., 2004; Gathercole & Alloway, 2008). Students with poor working memory at the beginning of their schooling are likely to have poor working memory as teenagers and adults.

Phonological awareness. A key deficit frequently associated with reading disabilities is the phonological component of language (Gillon, 2004; Snowling, 2006). Many students with learning disabilities have difficulty attending to the sounds and oral language patterns within words. This ability is called phonological awareness. In the early years of schooling, students may show difficulties in detecting and creating rhyming words, breaking words into syllables, identifying the phonemes (individual sounds) at the beginning and end of words and isolating, deleting and substituting phonemes within words.

Frequently, older students with dyslexia also demonstrate difficulties in some of these more complex phonological processes, especially in accurate and efficient phoneme identification and manipulation (Gillon, 2004). The ability to work with syllables, and to blend and segment phonemes in words, is critical to the development of good reading and spelling skills. Students learn that the sounds they make when they speak relate directly to the letters they use when reading and writing. Essentially, we blend phonemes to read and we segment to spell.

Phonological memory. The ability to hold speech-based information in short-term memory is called phonological memory. We rely heavily on our phonological memory when reading and spelling. Students with poor phonological memory are unable to hold as much phonological information in mind as their age-matched peers. When recalling nonsense words, they tend to forget parts of the word and/or confuse the sounds and sequence of sounds in the word (Gathercole & Baddeley, 1990). Students with dyslexia often have weaknesses in phonological memory.

Rapid automatised naming. A skill that is commonly related and assessed in the identification of dyslexia is referred to as rapid automatised naming (RAN). It requires an individual to quickly identify and name a series of common stimuli (e.g. letters, numbers, colours, objects) (Fletcher et al., 2007). People with learning disabilities often take longer to name these items when compared to their peers (Wolf & Bowers, 1999). RAN provides information about an individual's ability to retrieve words quickly and easily from long-term memory. Students with a poor RAN score (and, therefore, difficulties with rapid word retrieval) tend to have weaknesses in reading and writing fluency. These difficulties often become apparent later in a student's education.

Orthographic processing. Becoming a fluent reader requires both the capacity to utilise sound-based decoding strategies and the ability to accurately recognise familiar letter patterns either as whole words (e.g. '*was*') or within words (e.g. *night*). The ability to rely less heavily on sound-based decoding strategies is very much dependent on the development of orthographic processing. Orthography refers to the conventional spelling system of any given language and

includes rules around letter order, letter combinations, capitalisation, hyphenation and punctuation. Orthographic processing is the ability to understand and recognise these writing conventions and recognising when words contain correct and incorrect spellings (Share, 2008).

Students with weak orthographic processing rely very heavily on sounding out common letter strings that should be in memory, leading to a choppy and laborious style of decoding. These students are also more likely to have difficulty applying knowledge of root words in order to decode a variation of a word and confuse simple words like 'on' and 'to' when reading.

Delays in orthographic processing are also linked to ongoing difficulties in letter recognition and letter reversals. If the shape and orientation of a letter is not fully consolidated and stored in visual memory, then students are more likely to make reversal errors and be unable to recognise when they have made a mistake.

As skilled readers need to recognise words automatically, there is a heavy reliance on orthographic processing in the development of reading fluency. Delays in this area are likely to inhibit a student's applied reading skills and ultimately affect his/her reading comprehension skills (Kendeou, Papadopoulos, & Spanoudis, 2012). In addition, poor orthographic processing will almost certainly result in both a high rate of spelling errors and poor written expression (O'Brien, Wolf, Miller, Lovett, & Morris, 2011). Students find it difficult to remember the correct spelling pattern for a particular word and don't seem to benefit from the editing tool, 'Does it look right?' Rather, they demonstrate the tendency to overrely on phonological information, writing words like 'rough' as 'ruff' and 'night' as 'nite'.

Developmental differences in behavioural presentation of reading disability. The visible signs of reading disabilities will vary depending on the age of the child. Table 1 highlights common differences in behavioural presentation of reading disabilities by year level. It is important to note that not all children will demonstrate all of the following signs.

Assessment of Reading Disabilities

The assessment of reading disabilities is a complex process, requiring the integration and analysis of information from a range of sources. Well-informed teachers and parents play a crucial role in the effective early identification and assessment of reading disabilities. Unfortunately, research suggests that many children with reading disabilities are never identified or diagnosed (Bond et al., 2010). As a consequence, these students are likely to struggle both academically and emotionally. They may enter a 'downward spiral of underachievement, lowered self-esteem and poor motivation' (Snowling & Hulme, 2013, p. 186), which can then result in a need for academic and emotional support in the classroom. The early identification and assessment of suspected reading disabilities is essential.

Assessment of academic achievement. Two common academic achievement measures standardised for use in Australia used in the assessment of learning disabilities are the Wechsler Individual Achievement Test—Second Edition (WIAT-II) intended for individuals from 4 through to 19 years and the Woodcock-Johnson III Test of Achievement (WJ-III ACH) designed for ages 2 to 80+ years. Both of these batteries include a range of subtests that identify specific strengths and weaknesses in reading achievement. The WJ-ACH has recently been revised and is now available (WJ-IV ACH) and the WIAT is now in the third edition, though Australian normative data is not yet available. Table 2 includes a summary of suggested batteries to choose when completing an evaluation of reading disabilities.

Cross-battery analysis in the assessment of processing and reading disabilities. In order to gather all of the cognitive and academic information necessary to determine whether or not a student has a reading disability, a cross-battery analysis is recommended and often necessary to meet DSM-5 criteria which involves a thorough assessment to rule out exclusionary diagnoses. The specifics of this approach are covered in greater detail in other chapters within this volume (See Chap. 8: Specific Learning Disorders). Table 3 provides a sample

Table 1 The behavioural presentation of reading disabilities

Lower primary school
• Difficulties with oral rhyming, syllabification, blending and segmenting of sounds in words
• Delayed speech and language development including limited spoken vocabulary
• Poor understanding of letter-sound correspondences
• Difficulty in the acquisition of letter knowledge
• Slow and inaccurate word recognition and inability to read nonsense words
• Poor spelling
• Difficulty understanding reading material
• Difficulties with tasks requiring reasonable working memory capacity—such as following instructions or remembering sequential information
Upper primary school
• Reduced ability to isolate and manipulate individual sounds in words
• Difficulties holding verbal information (e.g. instructions) in working memory
• Slow to complete literacy-related tasks
• Reading is slow and dysfluent
• Visually similar words are often confused when reading
• Trouble decoding unfamiliar words
• Poor reading comprehension
• Limited retention of orthographic knowledge including spelling patterns
• Numerous spelling errors (phonetic or non-phonetic)
• Significant discrepancy between verbal ability and written skills
• A lack of interest in or avoidance of reading and writing tasks
• Ongoing difficulties in working memory
Secondary school
• Poor reading fluency
• Reduced reading comprehension (may need to reread material many times to comprehend)
• Poor spelling, including lack of knowledge of patterns in words and morphological knowledge (affixes and base words)
• Poor writing fluency and slow speed of writing
• Difficulties writing in a structured manner (i.e. poor sentence and paragraph construction, unable to structure essays)
• Disorganisation and difficulties with planning
• Limited working memory and word-finding difficulties
• A lack of interest in or avoidance of reading and writing tasks
• Working memory difficulties may become more pronounced as the demands of schooling increase

Table 2 Battery of tests suggested for dyslexia assessment

Test	What it measures
Wechsler (WAIS-IV; WISC-V; WPPSI-III)	Verbal and non-verbal cognitive ability, strengths, weaknesses, crystallised abilities, short-term memory, working memory and processing speed
Wechsler (WIAT-II)	Academic achievement, literacy skills, numeracy skills, comprehension ability
Woodcock-Johnson (WJ-III ACH)	Academic achievement, literacy skills, numeracy skills, comprehension ability, phonological processing and auditory processing
Comprehensive Test of Phonological Processing Second Edition (CTOPP-2)	Phonological awareness, phonological memory and rapid automatised naming (RAN)
York assessment of reading comprehension Australian Edition (YARC)	Letter sound knowledge, reading accuracy, reading rate and reading comprehension

Note: *WISC-V* Wechsler Intelligence Scale for Children, Fifth Edition (Wechsler, 2014); *WPPSI-III* Wechsler Preschool and Primary Scale of Intelligence Third Edition (Wechsler, 2002); *WAIS-IV* Wechsler Adult Intelligence Scale, Fourth Edition (Wechsler, 2008); *WIAT-III* Wechsler Individual Achievement Test, Third Edition (Wechsler, 2009); *WJ-III* Woodcock-Johnson III Tests of Achievement (Wendling, Schrank, & Schmitt, 2007); CTOPP-2 (Wagner, Torgesen, Rashotte, & Pearson, 2013); YARC (Snowling et al., 2011)

cross-battery approach to identifying reading disabilities.

Interventions for Reading Disabilities

Referrals for the assessment of reading-related concerns are common in Australia. The purpose of these assessments is to both ascertain whether the student has a reading and, perhaps more importantly, to make informed recommendations with respect to intervention and ongoing support. Unfortunately, there is evidence to suggest that many school psychologists do not have a strong

Table 3 Cross-battery analysis for reading disability

DSM-5 criteria		Wechsler focus	W-JIII focus
A	**Evidence of RTI history**	Evidence of individualised tutoring or small group intervention focusing on area/s of weakness that has occurred for at least 6 months	
A and B	**Academic achievement**	*Evidence from teachers/school that academic performance is below that of same aged peers and causes significant interference with academic performance or average achievement that is sustained only through extraordinarily high levels of effort or support*: academic reports, performance on curriculum-based literacy assessments, timed tests, teacher reports/observation, school work samples **AND**	
		Evidence from individual administered norm-referenced assessments (as per below)	
	Reading accuracy (individual words and passages)	WIAT-II: word reading &	WJ-III: letter-word identification &
		WIAT-II: pseudoword decoding &	WJ-III: word attack &
		TOWRE-2: real words and nonsense words (timed) &	TOWRE-2: real words and nonsense words (timed) &
		YARC: accuracy **OR**	YARC: accuracy **OR**
		GORT-5: accuracy	GORT-5: accuracy
	Reading fluency (individual words and passages)	TOWRE-2: real words and nonsense words &	TOWRE-2: real words and nonsense words &
		YARC: rate **OR**	WJ-III: reading fluency
		GORT-5: fluency and rate	
	Reading comprehension	YARC: comprehension **OR**	WJ-III: passage comprehension &
		WIAT-II: reading comprehension **OR**	YARC: comprehension **OR**
		GORT-5: comprehension	GORT-5: comprehension
	Spelling	WIAT-II: spelling **OR** SAST &	WJ-III: spelling &
		QUIL: non-word spelling	WJ-III: spelling of sounds
		DST: *two-minute spelling*	*DST*: *two-minute spelling*
C	**Onset**	*Evidence from teachers/school that the student has experienced persistent difficulties which manifested during school-age years*: academic reports, performance on curriculum-based measures, timed tests, teacher reports/observation, clinical interview	
D	**Cognitive ability**	*Exclude intellectual disability through cognitive assessment*	
	Verbal	WASI-II: vocabulary and similarities **OR**	WJ-III: verbal comprehension and general information
		WISC-V: similarities and vocabulary **OR**	
		WAIS-IV: similarities, vocabulary and information	
	Non-verbal	WASI-II: block design and matrix reasoning **OR**	WJ-III: concept formation and spatial relations; and picture recognition and spatial relations
		WISC-V: block design, visual puzzles, figure weights and matrix reasoning **OR**	
		WAIS-IV: block design, matrix reasoning and visual puzzles	
	Other factors	*Exclude other factors such as uncorrected visual or auditory acuity, other mental or neurological disorders, psychosocial adversity, lack of proficiency in the language of academic instruction, or inadequate educational instruction*: synthesis of background history (developmental, medical, family, educational) through parent and/or teacher interview and reports, previous professional assessments, school reports	

(continued)

Table 3 (continued)

DSM-5 criteria		Wechsler focus	W-JIII focus
Other clinical considerations	**Phonological processing**	*Research evidence suggests the presence of underlying processing issues frequently associated with learning difficulties*	
	Phonological awareness	CTOPP: elision, blending and phoneme isolation	WJ-III: sound awareness, incomplete words and sound blending
		SPAT-R	
	Phonological memory	CTOPP: memory for digits and non-word repetition	CTOPP: memory for digits and non-word repetition
	Rapid automatised naming	CTOPP: rapid letter naming and rapid number naming **OR**	WJ-III: rapid picture naming &**/OR**
		RAN/RAS	CTOPP: rapid letter naming and rapid number naming
		NEPSY: speeded naming	
	Working memory	WISC-V: digit span and picture span **OR**	WJ-III: numbers reversed and auditory working memory
		WAIS-IV: digit span (backwards) and arithmetic	
	Processing speed	WISC-V/WAIS-IV: coding and symbol search	WJ-III: visual matching and decision speed
			WJ-III: pair cancellation
	Orthographic processing	Analysis of spelling errors on individual word spelling tests (non-word and real word) and in written expression: poor memory for sight words, overreliance on 'sounding out' all words, violates rules of English spelling/ including patterns, guessing simple words, reversing letters (b vs. d), reversing the order of letters (from vs. form)	
	Language comprehension	WIAT-II: listening comprehension and oral expression &**/OR**	WJ-III: understanding directions and oral comprehension &**/OR**
		NEPSY-II: comprehension of instructions	NEPSY-II: comprehension of instructions
	Long-term storage and retrieval	NEPSY: list memory &**/OR** word list interference	WJ-III: visual-auditory learning and retrieval fluency (Glr)
Comorbidity testing	**ADHD**	BRIEF: parent & teacher forms &**/OR**	
		NEPSY-II: animal sorting, auditory attention and response set and inhibition subtests &**/OR**	
		Conners-3: parent and teacher forms	
	Anxiety/ depressive disorders	CBCL: parent form &**/OR**	
		TRF and**/OR** BYI-II	
	General screen	BASC-2	

Note: Assessment tools in Italics are possible additional tests if further information is required
WIAT-II (Wechsler, 2009); *TOWRE-2* Test of Word Reading Efficiency, Second Edition (Torgesen, Wagner, & Rashotte, 2013); YARC (Snowling et al., 2011); *GORT-5* Gray Oral Reading Tests, Fifth Edition (Wiederholt & Bryant, 2012); *WJ-III* Woodcock-Johnson III Tests of Achievement/Tests of Cognitive Ability (Wendling et al., 2007; Woodcock, McGrew, & Mather, 2007); WAIS-IV (Wechsler, 2008); *QUIL* Queensland University Inventory of Literacy (Dodd, 1996); *DST* Dyslexia Screening Test (Fawcett & Nicolson, 2004); *WASI-II* Wechsler Abbreviated Scale of Intelligence, Second Edition (Wechsler, 2011); WISC-V (Wechsler, 2014); CTOPP (Wagner et al., 2013); *SPAT-R* Sutherland Phonological Awareness Test—revised (Neilson, 2003)

knowledge of evidence-based intervention. In one survey of 496 practising school psychologists in the United States, it was found that 'over 55% of participants reported their knowledge and abilities related to reading intervention to be in the moderately low to low range' (Nelson & Machek, 2007, p. 316). Likewise, it has been suggested that many teachers lack sufficient

knowledge of reading and language development and are poorly prepared to teach reading (Foorman, Breier, & Fletcher, 2003). A recent inquiry into teacher education in Australia entitled 'Action Now—Classroom Ready Teachers' suggested that this is also the case for Australian teachers. The report was commissioned by the Australian Government in response to growing criticism of current teaching standards and indicated that many graduating teachers are not equipped with the evidence-based strategies, skills and resources needed to respond to students with diverse learning needs (TEMAG, 2015). This highlights the need for more training in the important areas of reading development, reading assessment and effective intervention in graduate training programmes.

Interventions for reading disabilities are multi-faceted. The RTI model is by definition a multi-tiered approach to intervention, with high-quality instruction provided to all children within the classroom as the first tier and smaller group interventions for children who do not respond to classroom instruction in the latter tiers. High-quality reading instruction for all children in classrooms, particularly in early elementary school, includes explicit instruction in phonemic awareness, the alphabetic principle, vocabulary acquisition and comprehension of text. This type of curriculum has been shown to substantially reduce referrals for special education (Alexander & Slinger-Constant, 2004; Nelson & Machek, 2007). In a review of several studies looking at early intervention reading programmes for at-risk students, Foorman et al. (2003) estimated that only '2% to 6% of first and second graders remained impaired in reading with well-designed early intervention' (p. 629) and required more specialised support. These numbers are substantially lower than the number of children identified as poor readers from large-scale studies and suggests the need for good instruction in the classroom as the first step.

The need for improved instruction in the early years was also highlighted in the 'Action Now—Classroom Ready Teachers' report (TEMAG, 2015). The inquiry found that graduating teachers did not have knowledge of a range of evidence-based instructional strategies, particularly in literacy and numeracy, and that, as a result, many new teachers were poorly equipped to effectively teach the foundation skills of phonemic awareness and phonics in the early years (TEMAG, 2015). One of the recommendations made to the Australian Government as a consequence of the inquiry was that there was a need to improve the preparation, knowledge and skills of teachers, as well as a need to ensure that all graduates have appropriate personal levels of literacy and numeracy (TEMAG, 2015).

Alexander and Slinger-Constant (2004) make the important distinction between at-risk readers and disabled readers. At-risk readers include 'young children who have had minimal exposure to reading and are deficient in phonologic awareness and letter knowledge', and disabled readers can be viewed as 'those who have had exposure to adequate reading instruction and have not learned to read' (p. 745). For the latter group, specialised interventions must be provided by trained professionals. Prior to choosing an intervention, a good assessment of the underlying areas of weakness should be completed. The components of these assessments have been described in the previous table, with the most effective interventions being those that are chosen and designed to respond to address the underlying skill deficits identified through comprehensive evaluation.

Components of effective interventions. There are several viable approaches for the remediation of reading disabilities, and though they vary in content and scope depending on the type of reading impairment, most include similar components. This includes consideration of how systematic and time intensive an intervention is, the teacher-to-student ratio in delivery of the intervention, when a particular intervention is best applied developmentally, as well as use of a multisensory format for individuals with specifically identified deficits such as those with memory weaknesses (Campbell, Helf, & Cook, 2008).

Systematic interventions are generally considered to be those that are carefully planned; have a predictable and repetitive session structure; teach skills explicitly, cumulatively and to mastery; fol-

low a predetermined and predictable sequence; and are delivered with a high level of intensity and frequency (for an example see Shaywitz et al., 2004).

In terms of group size, there are several studies that show that small group instruction (2–7 children) can be as effective as individual instruction in remediating reading disabilities (Foorman et al., 2003; NICHD, 2000). In addition, trained teachers or teaching assistants typically produce the most consistent results. While individual children will vary in how many hours of phonemically based instruction is needed to remediate weaknesses, the National Reading Panel research synthesis found that 'treatments lasting from 5 to 18 h produced larger effect sizes than shorter or longer treatments' (NICHD, 2000, p. 24).

Interventions for improving word reading accuracy. Increasing word reading accuracy involves targeting underlying weaknesses in phonological and phonemic awareness as well as systematically teaching phoneme-grapheme relationships (Duff & Clarke, 2011; Foorman et al., 2003). In order to read and write accurately, students need to acquire the alphabetic principle, that is, the 'intentional and conventional understanding of how alphabetic letters related to the segments of sound in speech they represent' (Foorman et al., 2003, p. 615). Intervention programmes aimed at improving phonic knowledge can take a synthetic or analytic approach. Synthetic approaches are those that focus on teaching phoneme-grapheme relationships from an oral language to written language perspective. That is, children are initially taught to isolate sounds and then taught the specific letter or letters that they can use to write those sounds down. There is a strong emphasis on oral blending and segmenting of phonemes, as these are viewed as the necessary precursor skills for reading (blending) and spelling (segmenting). The National Reading Panel (NICHD, 2000) concluded that teaching phonemic awareness to children significantly improves their reading (and spelling) when compared to instruction without any attention to phonemic awareness. Examples of programmes that follow a systematic, synthetic approach include Letters and Sounds (Primary National Strategy, 2007), Sounds-Write (Sounds-Write Ltd., 2013), the MultiLit (Making Up Lost Time in Literacy) Reading Tutor Program (Multilit Pty Ltd., 2016), the MiniLit Early Intervention Program (Multilit Pty Ltd., 2016), Reading Freedom (Calder, 2000) and Little Learners Love Literacy (Learning Logic Pty Ltd., 1995). In a recent report entitled 'High performing primary schools: What do they have in common?', nine schools were identified as significantly raising achievement levels across all student cohorts. One of only three common characteristics found in all nine schools was the existence of reading programmes based on the explicit teaching of synthetic phonics (Louden, 2015).

Analytic approaches are those that teach word onsets and rime patterns in words. Onsets include the initial consonants and rime are the remaining letters in the word (e.g. in the word meat 'm' is the onset and 'eat' is the rime). This approach, at times referred to as an analogy, word family or linguistic approach, teaches students to identify similarities in the orthography of words. The emphasis is more of a written to oral language approach. At least 37 common rimes in the English language have been identified that can be taught to make up at least 500 primary words (Mather & Goldstein, 2001). Some examples of common rimes include -ak, -aw, -ink, -ock, -ake, -ice and -op.

Efficiency in the processing of orthographic information, or the ease and speed at which word parts (letters and patterns) are read, is related to single-word reading and is separate from phonemic awareness. An individual may be deficient in both phonological processing and orthographic processing, though it is well documented that phonological weaknesses are often the central deficit in reading disabilities, particular dyslexia.

Other approaches and techniques designed to target phonemic skills include auditory training programmes and multisensory programmes. Research on auditory training programmes, such as Earobics (Cognitive Concepts, 1998) and Fast ForWord (Scientific Learning Corporation, 1996), has not yielded consistent findings on increasing reading skills, despite increasing auditory, phonological and language processing (Alexander & Slinger-Constant, 2004). Likewise, multisensory

approaches are incorporated in many treatment approaches and have some support from smaller research studies, though larger group studies are needed (Snowling & Hulme, 2013). Multisensory approaches include utilising 'visual, auditory, and kinesthetic-tactile strategies simultaneously to affect memory and learning' (Campbell et al., 2008, p. 269). For example, when learning to spell a new word, a child may look at the word (visual), say the word (auditory), trace the word with their finger (tactile) and then attempt to recall the word from memory.

Interventions for improving reading comprehension. The ability to comprehend text is the definitive goal of reading. While efficient phonological processing, decoding and fluency are vital to reading comprehension, research on the sources of reading comprehension difficulties have found differences in underlying areas of deficit. Compared to research on dyslexia and reading disabilities based on phonological or orthographic weaknesses, the literature base on interventions for reading comprehension is much less. In their summary of research on reading comprehension interventions, Snowling and Hulme (2013) report that:

> Although the bulk of research focusing on intervention for children with poor reading comprehension has focused on building meta-cognitive strategies that will increase their engagement with written texts and enable children to process them more efficiently, this form of training was less effective in the longer term for poor comprehenders than an intervention that focused on oral language skills (p. 13).

Two common approaches to remediating reading comprehension are a text-based approach and an oral language approach. In a text-based approach, students are taught a number of meta-cognitive strategies such as monitoring the text as they read, question answering and generating, summarising, paraphrasing and the use of graphic organisers and story maps. It has been suggested that these approaches may be more effective in secondary students than in younger students (Snowling & Hulme, 2013). Alternatively, the oral language approach is focused on language development, particularly vocabulary development. Within the context of a language-rich environment, vocabulary is taught both explicitly and indirectly (McKeown & Beck, 2014). Techniques such as semantic feature analysis, where vocabulary is increased by exploring similarities, differences and connections between words, has been shown to be helpful (Wendling & Mather, 2009). Other evidence-based recommendations to build vocabulary include repeated, multiple exposures to vocabulary, pre-teaching vocabulary and a mnemonic keyword strategy approach, where new vocabulary words are associated with a similar-sounding known word and a visual image (NICHD, 2000; Wendling & Mather, 2009). In Australia, a commonly used model for teaching vocabulary is the approach described by Isabel Beck and Margaret McKeowan (Beck, McKeown, & Kucan, 2013). They assert that vocabulary instruction should be robust, which involves 'directly explaining the meaning of words, along with thought-provoking, playful, and interactive follow up' (Beck et al., 2013, p. 3). For example, in the classroom a set of vocabulary words are chosen from a story the class had just read. These words are then contextualised within the story, a student-friendly non-dictionary explanation of the word is given, and then an additional context for the word is offered separate from the story. Students are then encouraged to actively process the new vocabulary words by making word-to-self connections, and multiple opportunities to encounter these learned words are provided over time (for more information see Beck et al., 2013).

Intervention approach for improving reading fluency. A student's reading fluency ability is one of the strongest predictors of reading comprehension (Gentaz, Sprenger-Charolles, & Theurel, 2015). As a result, reading fluency interventions are common and typically include the effective components of repeated reading, passage preview and corrective feedback for errors (Chard, Vaughn, & Tyler, 2002; Mascolo, Alfonso, & Flanagan, 2014).

Repeated reading as an intervention includes rereading a passage until a set of predetermined criterion is met (Therrien & Kubina, 2006). Typically, repeated reading is done using short passages at the student's current reading level. The student then repeatedly reads the passage aloud while the number of correctly read words per minute and errors are recorded. Repeated reading builds fluency and reading accuracy and improves comprehension and is most useful for students whose skills fall between a first to third grade reading level (Chard et al., 2002; Therrien & Kubina, 2006). The intervention can be implemented in a variety of formats, including whole-class instruction as well as individual instruction delivered by teachers, paraprofessionals and peers. However the intervention is delivered, repeated reading must occur fairly frequently at about 3–5 times each week for 10–20 min each time to be effective (Mather & Wendling, 2006; Therrien & Kubina, 2006).

Another important component of reading fluency interventions is corrective feedback. Individuals implementing the reading intervention should be trained on when to provide immediate feedback after the word is read incorrectly or delayed feedback based on the errors a student makes. Immediate corrective feedback is given for all misread or skipped words, while overall feedback about performance is given after a student completes reading a passage before they reread (Mather & Wendling, 2006; Therrien & Kubina, 2006). Once given feedback, students should then reread the word or sentence correctly that contained their original error. Research has found that corrective feedback increases the effectiveness of reading interventions (Mather & Wendling, 2006).

Lastly, passage preview intervention, sometimes referred to as listening passage preview (LPP) or as modelling, is often used prior to repeated reading interventions and has been found to effectively improve reading fluency (Mather & Wendling, 2006; Swain, Leader-Janssen, & Conley, 2013). Passage preview involves providing an example of fluent reading of a passage for the student, either by having a fluent reader read the passage aloud or through the use of audio recordings. The student follows along in the reading of the passage while listening to the example. Passage preview improves prosody and promotes comprehension (Chard et al., 2002; Mather & Wendling, 2006).

Current models of intervention for fluency weaknesses are vastly varied. Some include partnered reading among peers, some utilise audio recordings to guide independent reading, while others are directed by adults or school personnel who provide feedback to the student. Ultimately, research supports the theory that the strongest gains are found when interventions include all three of the effective components of repeated reading, passage preview and corrective feedback for errors (Chard et al., 2002; Mascolo et al., 2014; Mather & Wendling, 2006).

Delivery of intervention by trained personnel. As expected, well-trained teachers are by far the most effective individuals to implement a reading intervention when compared to paraprofessionals and tutoring volunteers (Slavin, Lake, Davis, & Madden, 2011). Generally, individual instruction by either a qualified teacher or a reading specialist is the most effective way to deliver intervention to a struggling reader. However, volunteers well trained in reading remediation have been found to be highly effective in delivering interventions (Slavin et al., 2011). Peer tutoring has proved to be feasible, flexible and effective with a carefully scripted programme (Dufrene et al., 2010; Therrien & Kubina, 2006), but it is not used widely or effectively in many Australian schools.

Treatment integrity and cultural variables. An essential part of any intervention is maintaining treatment integrity, especially to empirically supported interventions. This is important to ensure that the effective components of an intervention are present as well as allowing a provider the ability to make accurate conclusions about the effectiveness of the intervention (Lane, Bocian, MacMillan, & Gresham, 2004). This can be done in many ways, including direct observation of the

intervention, feedback from those implementing the intervention and even creating intervention scripts and checklists to maintain integrity (Lane et al., 2004). Not only must the integrity of the intervention be monitored, it is necessary to examine student progress throughout the course of treatment. Within any evidence-based intervention, a student should not progress through the programme if skill development does not occur (Therrien & Kubina, 2006).

It is also exceedingly important to consider the impact diversity and culture may have on a student's development of reading skills. In the 'Review of Funding for Schooling' (DEEWR, 2011) commissioned by the Australian Government in 2011, it was identified that the performance of Australian school students had declined at all levels of academic achievement, including reading, over the past decade. A clear link between low levels of literacy attainment and educational disadvantage, particularly among students from low socioeconomic and indigenous backgrounds, was established in the research collected for the review. An important finding was that, 'The key dimensions of disadvantage that are having a significant impact on educational performance in Australia are socioeconomic status, Indigeneity, English language proficiency, disability and school remoteness' (DEEWR, 2011, p. xxiii).

Students will differ greatly in their understanding of the English language, various cognitive abilities such as working memory and executive functioning and the resources available within their environment (Mascolo et al., 2014). Many of the empirically supported reading intervention programmes discussed previously have been found to be effective across grade levels as well as with diverse students from a variety of settings (Joseph, 2008). However, while keeping treatment integrity in mind, interventions can be tailored to meet the needs of diverse students. This may come in the form of modifying the intervention by reducing the amount of material a student is exposed to, accommodating an intervention by being flexible about setting or treatment schedule or by compensating for a cognitive or academic deficit by using aids or techniques to minimise its impact (Mascolo et al., 2014).

Summary

Reading is a complex process that requires the efficient integration of many cognitive processes and skills, including phonological, orthographic and language. While many children learn to read automatically and fluently with good classroom-based instruction, a significant number struggle to develop reading skills. Assessment for these children needs to focus on evaluating all areas of suspected deficit, with particular emphasis on reading accuracy, fluency and comprehension as well as phonological and orthographic processing. It is important to assess in the early stages of reading development and in all students suspected of having a reading disability. In addition, for older students or those who have adequate decoding and spelling but still struggle to comprehend material, assessment in vocabulary and oral language skills is considered necessary. Many of the test batteries most commonly used, such as the Wechsler scales, do not measure all of these areas of cognitive functioning, and the use of a cross-battery approach to complete supplemental testing in suspected weaknesses is needed.

Effective interventions for struggling and disabled readers will be those that are developed in response to identified weaknesses (e.g. RAN, phonemic awareness, orthographic awareness, oral language) and are systematic, explicit, and provided by trained instructors. Current research suggests that for children with reading disabilities that affect reading accuracy, such as dyslexia, a phonics-based approach is the most effective. For children with poor reading comprehension, interventions that focus on the development of oral language and vocabulary are the most successful, with teaching of metacognitive skills being part of the intervention for secondary students. Interventions to address reading fluency

include passage previewing, corrective feedback and repeated reading. With appropriate, research-guided assessment and intervention practices, all children should be able to make progress in their reading skills development.

Test Yourself Quiz

1. What approach is recommended in diagnosing a reading disability? What was historically used to diagnose reading and learning disabilities? Why is this method no longer used?
2. Which specific skill and processing deficits are frequently associated with reading disabilities? What is the most common skill deficit?
3. What is the difference between at-risk readers and students with reading disabilities?
4. Effective interventions for students with reading disabilities are designed to address what? Repeated reading and corrective feedback are components of effective intervention for what type of reading skill deficit?

Case Study

Reason for referral and background information. Jemima is an 8-year, 3-month-old student in Year 3. She was referred for an assessment due to ongoing concerns with her academic progress, particularly in reading and writing. These literacy difficulties have persisted, despite additional support and ongoing tutoring. Jemima was born full-term following a normal pregnancy. No concerns were reported with her developmental or medical history, and her hearing and vision have both been recently assessed and found to be within normal limits.

Jemima has received small group remedial support since Year 1 and was placed on an Individual Education Plan (IEP) in Year 2. Individualised and small group literacy support has continued into Year 3, including modifications to her work and reduced task demands. She has been a regular school attender and is viewed as a motivated student, although concerns have recently been raised about her deteriorating self-esteem. In addition to school-based support, Jemima has been receiving weekly private tuition since Year 1 focusing on improving her phonological awareness, reading and writing skills. A family history of learning difficulties was reported and Jemima's brother has previously been diagnosed with dyslexia.

Assessment results		
Skill	Test	Result
Intellectual functioning		
Verbal comprehension	WISC-V—similarities and vocabulary	Average range
		Percentile rank = 61
Visual spatial	WISC-V—block design and visual puzzles	High average range
		Percentile rank = 79
Fluid reasoning	WISC-V—figure weights and matrix reasoning	Average range
		Percentile rank = 58
Working memory	WISC-V—digit span and picture span	Borderline range
		Percentile rank = 4
Processing speed	WISC-V—symbol search and coding	Average range
		Percentile rank = 50
Phonological processing		
Phonological awareness	CTOPP—elision, blending words and phoneme isolation	Low average range
		Percentile rank = 21
Phonological memory	CTOPP—memory for digits and non-word repetition	Borderline to extremely low range
		Percentile rank = 3

Assessment results		
Skill	Test	Result
Rapid naming	CTOPP—rapid digit naming and rapid letter naming	Low average range
		Percentile rank = 16
Literacy attainments		
Reading—real words—**UNTIMED**	WIAT-II—word reading	Low average range
		Percentile rank = 21
Reading—nonsense words—**UNTIMED**	WIAT-II—pseudoword decoding	Average to low average range
		Percentile rank = 25
Reading—real words—**TIMED**	TOWRE—sight word reading efficiency	Low average range
		Percentile rank = 19
Reading—nonsense words—**TIMED**	TOWRE—phonemic decoding efficiency	Low average range
		Percentile rank = 21
Reading connected text—**TIMED**	GORT-5—overall oral reading quotient	Low average to borderline range
		Percentile rank = 10
Spelling—real words—**UNTIMED**	WIAT-II—spelling	Low average to borderline range
		Percentile rank = 9
Spelling—non-word words—**UNTIMED**	QUIL—non-word spelling	Low average to borderline range
		Percentile rank = 9
Overall writing ability—**TIMED**	WIAT-II—written expression	Borderline range
		Percentile rank = 6
Handwriting speed—**TIMED**	HST	Average to low average range
		Percentile rank = 25

Discussion. Jemima's cognitive assessment results indicated that she has average verbal and high average non-verbal capacity resulting in many talents and strengths but that she also has significant weaknesses in her working memory and phonological processing, both of which are impacting on her learning. Jemima found working memory tasks particularly challenging, struggling to retain more than two items in her short-term memory and simultaneously manipulate the information. A working memory weakness is known to impact on a student's capacity to learn the foundation skills in reading and spelling. It also impacts on reading comprehension. Jemima also struggled to retain language-based information in her short-term memory and had difficulties completing the RAN subtests in a timely manner. The capacity to retrieve semantic information from long-term memory (RAN) is frequently associated with the development of both reading and writing fluency. Jemima's processing weaknesses are likely to be impacting on her basic reading, spelling and writing skills which were found to be weaker than expected for her age and current level of education. Despite being provided with targeted remedial support over the past few years, Jemima continues to have great difficulty performing at an age-appropriate level in all areas of literacy. Overall, when considering her approach to literacy tasks, underlying processing weaknesses, intellectual profile and the level of response she has had to intervention, it is clear that Jemima's profile meets the DSM-5 criteria for a specific learning disorder with impairment in reading, also known as dyslexia, and a specific learning disorder with impairment in written expression. Jemima continues to struggle with reading, spelling and written expression despite targeted intervention in all areas for more than 6 months. Results on the standardised achievement testing conducted as

Recommended strategies for intervention and support			
Needs	Strategies	Input/resources	Proposed outcome
Continued development of phonological awareness	• Engage Jemima in activities and games that continue to strengthen her understanding of the sound structure of words (e.g. rhyming, blending, and segmenting sounds)	• Teacher/parents/other	• Ability to identify, blend and segment sounds within words
	• Engage Jemima in activities and games that develop her ability to hear and manipulate the sounds in words		
Delays in reading and spelling	• Utilise a structured and systematic programme that focuses on consolidating Jemima's phonics knowledge and her understanding and application of spelling patterns, conventions, rules and grammar	• Teacher/parents/other	• Understanding of spelling rules and conventions
	• Individualised or small group remediation or support would be very beneficial for Jemima. One-to-one tutoring would provide Jemima with intensive and targeted support	• Decodable reading series include *Phonics Books* or *Read Write Inc*	• Improved vocabulary
	• Encourage Jemima to focus on the sound structure of words and use her knowledge of sound-letter links to read and spell new words		• Improved fluency in reading and writing
Poor reading fluency	• Repeated readings of simple text with an initial focus on accuracy then speed	• Teacher/parents/other	• Improved reading fluency
	• Use of a structured reading programme	• Heather Harvey's Intensive Reading Program	
Difficulties with reading comprehension	• Teach Jemima to use 'think-aloud' reading comprehension strategies	• Teacher/parents/other	• Improved capacity to comprehend
	• Encourage Jemima to underline or highlight key words or phrases in the text while reading		• Improved vocabulary
	• Assist Jemima to determine what information it would be preferable for her to gain from a text prior to reading		
	• Teach Jemima reading comprehension strategies such as summarising and drawing inferences using a range of instructional approaches including comprehension monitoring, question generation, graphic organisers etc.		
Difficulties consolidating learning	• Provide Jemima with opportunities to overlearn through repetition	• Teacher/parents/other	• Better able to retain learnt information
	• Frequent, short practice is most effective; for example, 15 min daily is more effective than one session of 1–2 h	• Computer programs include *WordShark* and *Nessy*	
	• Only introduce a new concept once the preceding concept has been mastered		

Recommended strategies for intervention and support			
Needs	Strategies	Input/resources	Proposed outcome
Difficulties applying knowledge to extended writing and reading tasks	• Provide remediation to Jemima on how to write a simple sentence, a compound sentence, a complex sentence, a paragraph, etc.	• Teacher/other	• Improved ability to produce written work that is more in line with Jemima's potential
	• Utilise writing frames and structured templates to assist Jemima to formulate her response	• *'How to'* book series	
	• Teach Jemima important grammar rules and the impact of grammar on spelling	• JumpStart Books from the *Talk for Writing* (T4W) Program	
	• Provide clear, structured and explicit feedback (with clear examples) throughout the writing process to assist Jemima with improving her written expression skills		
Weakness in working memory	• Parents and teachers should be aware of Jemima's difficulties in working memory	• Teacher/ parents/other	• Retention of information will improve
	• Check that Jemima has understood all verbal instructions by asking her to explain or repeat task requirements	• Tip sheets from *Understanding Learning Difficulties—A Practical Guide*	• Better understanding of task requirements
	• Structure instructions in a clear, concrete format by breaking them into small steps. Include visual prompts and a hands on demonstration rather than relying on Jemima's memory for task instructions		• Reduced anxiety
	• Encourage Jemima to seek clarification or request information to be repeated in a different way by classmates or the teacher		• Improved focus and attention
	• Rehearse steps or pre-learn strategies for complex tasks		

part of this assessment indicated that her reading, spelling and written expression are substantially below grade-level expectations, and these difficulties cannot be better explained by other factors.

It is recommended that a number of the following strategies be included in a detailed Individual Education Plan (IEP).

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Evidence-Based Assessment and Intervention for Dyscalculia and Maths Disabilities in School Psychology

Robert A. Reeve and Carolyn Waldecker

Evidence-Based Assessment and Intervention for Maths Disabilities

In today's world, children are required to keep track of an unprecedented amount of numerical information (computers, smartphones, etc.). Despite maths education, many children remain innumerate, and some suffer from a severe form of maths processing difficulty, known as dyscalculia (Butterworth, 2005). The negative consequences of dyscalculia are well known: adult dyscalculics are more likely than their numerate peers to be unemployed, experience mental illness, and be imprisoned (Parsons & Bynner, 2005). Children with dyscalculia often experience rejection by peers, self-concept difficulties, and school phobia (Butterworth & Yeo, 2004). Despite the importance of numeracy in the modern environment, dyscalculia has attracted little interest until recently, relative to other developmental learning disorders (e.g. dyslexia) (Bishop, 2010; Chinn, 2015). As Bishop notes, it was not until recently that funding agencies in the USA and UK began to support studies into the nature of developmental dyscalculia: between 2000 and 2010 NIH spent $107.2 million funding dyslexia research and $2.3 million funding dyscalculia research. Moreover, the socio-economic benefit of understanding the nature of dyscalculia cannot be overstated: improvements in a nation's maths ability are linked directly to increases in GNP (Butterworth, Varma, & Laurillard, 2011; OECD, 2010).

In this chapter we describe the current status of knowledge about developmental dyscalculia (DD),[1] as well as suggest assessment and intervention practices. There is little doubt that the ways in which DD is conceptualized have changed radically over the last 20 years—changes which have implications for assessment as well as intervention practices. Most likely, these changes will continue to occur, and one of our goals is to highlight challenges facing researchers and practitioners alike. The possibility that a single assessment method is suitable for all aged children is becoming more remote. Indeed, one of the themes of the chapter is to highlight challenges associated with

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[1] We distinguish between developmental dyscalculia and acquired acalculia (see Reeve & Humberstone, 2012). The latter is often associated with acquired brain insult (e.g. stroke), while DD is evident early in life and likely reflects brain dysfunction (see Nieder & Dehaene, 2009).

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the diagnosis of dyscalculia in young children; that is, before computation difficulties become evident in school settings.

Maths Disability (Developmental Dyscalculia): Definitions and Symptoms

While it is now widely accepted that DD is a unique and specific learning difficulty associated with "maths" learning, this was not always the case. Many educators, psychologists, and school counsellors considered maths difficulties a form of dyslexia (see Miles & Miles, 1992). However, a distinction between arithmetic and reading disabilities has been recognized for at least 100 years. Temple (1997, p. 257) cites the work of Hinshelwood (1917):

> *We also see the converse condition, boys who excel in their studies in other departments, but are the greatest duffers in arithmetic…Stephenson once saw a boy, 10 years of age, who experienced extraordinary difficulty reading numbers, without any corresponding difficulty as to letters and words.*

Over the last 20 years, however, many studies have investigated the origins and developmental sequelae of so-called "number sense" difficulties (Butterworth, 1999; Dehaene, 1997), and phrases such as "number blindness" are now part of the learning difficulties lexicon (Butterworth et al., 2011). Nevertheless, while there are likely pure forms of DD, unrelated to other learning difficulties (Henik, Rubinsten, & Ashkenazi, 2011), DD is occasionally co-morbid with other learning difficulties. In approximately 25 % of cases, for example, DD overlaps with dyslexia (see Butterworth, 2005). Some studies find that children with DD have working memory and/or general intelligence deficits, relative to their peers; however, other studies find no relationship between general cognitive deficits and DD (Gray & Reeve, 2014; Landerl, Bevan, & Butterworth, 2004; Reeve, Reynolds, Humberstone, & Butterworth, 2012).

Before defining DD more formally, it is important to note there are many reasons for being bad at maths (inappropriate teaching, missing class, behavioural problems, anxiety, etc.). And it is equally important to recognize that maths depends on a range of sub-skills that are integrated in the service of maths problem-solving development. In the young these include (but are not limited to) counting, estimating, number fact knowledge, etc., and the skill range grows with age.

Defining Developmental Dyscalculia

According to the Diagnostic and Statistical Manual of Mental Disorders, Version 5 (DSM 5), Developmental Dyscalculia (DD) is defined as a specific learning deficit associated with difficulties processing numerical information, learning arithmetic facts, and performing calculations (American Psychiatric Association, 2013, see p. 67). The DSM 5 suggests prevalence rates of 2 %; however, international prevalence rates suggest a figure between 6 and 8 % for DD (Hamak, Astilla, & Preclaro, 2015; Reeve et al., 2012; Reigosa-Crespo & Castro, 2015; Zhou & Cheng, 2015). The American Psychiatric Association (2013) offers a very general behavioural definition of DD, defining it as a specific learning disorder characterized by impairments in learning basic arithmetic facts, processing numerical magnitude, and performing accurate and fluent calculation. Children with DD experience difficulty acquiring number concepts, exhibit confusion over maths symbols, and experience problems learning and remembering number facts (Bugden & Ansari, 2015).

The DSM 5 (APA, 2013) definition does not consider the origins of DD, nor how it should be treated. On the basis of evidence, DD is best considered a neurological and/or genetic coherent syndrome that reflects a specific core deficit (Butterworth et al., 2011) (discussed later). In other words, DD is a maths domain specific phenomenon, comprising unique maths processing deficits that likely have an organic origin (Reeve & Gray, 2015). This characterization has assessment and intervention implications (discussed later).

Nevertheless, with some exceptions, a diagnosis of DD, and *ipso facto* its definition, depends

on computation performance, which means a formal diagnosis cannot be made until after the beginning of formal education. Moreover, a diagnosis of DD is often based on an arbitrary cut-point on standardized test performance (e.g. below the tenth percentile on computation), which in the absence of other information is difficult to interpret. As noted above, there could be different reasons for being bad at maths.

Common symptoms. Because there is relatively little work describing DD, there is no definitive list of symptoms. We list here some common symptoms (see the following websites for additional information on DD[2]). Not all children may show all symptoms, and because of an absence of research we do not know whether the symptoms identified in childhood remain in adulthood (apart from computation difficulties).

Older descriptions of developmental dyscalculia-like behaviours. The claim that number processing deficits have an organic basis was first made in the 1920s by Gerstmann, when he observed finger agnosia (an inability to distinguish among fingers) and left-to-right orientation difficulties, which are often associated with acalculia (a problem with counting and other maths functions that can occur later in life, see Miller & Hynd, 2004; Reeve & Humberstone, 2011). These deficits are associated with neighbouring neuroanatomical regions of the intraparietal cortex (Butterworth, 2005; Dehaene, Piazza, Pinel, & Cohen, 2003). The intraparietal sulcus (IPS) and left angular gyrus are implicated in number representation (Nieder & Dehaene, 2009).

The claim that maths difficulties have a non-verbal, neurological origin was made by Rourke (1995) who argued for a specific non-verbal disability associated with poor maths ability (Rourke, 1995; Rourke & Strang, 1978). They examined the relationships between motor, psychomotor and perceptuo-tactile competencies, reading, writing, as well as arithmetic abilities. They found children with normal reading and writing, but marked arithmetic deficits significantly correlated with psychomotor (a timed maze test, the Grooved Pegboard Test, and the Tactual Performance Test) and perceptuo-tactile (Tactile Perception, Finger Agnosia, Finger Tip Number-Writing Perception, Coin Recognition) test performance. This pattern of deficits is roughly analogous to those found by Gerstmann in the 1920s. Nevertheless, it is evident that so-called NVL abilities per se are more evident in older than younger children (i.e. 9- to 14-year-olds, compared to 7- to 8-year olds—see Rourke, 1995).

The term developmental dyscalculia (DD) was first used by Kosc (1974) to characterize a range of arithmetic difficulties. Kosc described six types of DD: (1) verbal dyscalculia is difficulty understanding maths terms; (2) practognostic dyscalculia is difficulty representing objects mathematically; (3) lexical dyscalculia is difficulty reading maths symbols; (4) graphic dyscalculia is difficulty writing maths symbols, (5) ideaognostic dyscalculia is difficulty understanding maths ideas; and (6) operational dyscalculia is difficulty with mental calculation procedures.

Three points should be made about Kosc's DD descriptions. First, they reflect commonly observed maths difficulties, many of which are co-morbid with other deficits (e.g. with dyslexia). Second, it is possible a common difficulty may underlie Kosc's categories. Thirdly, Kosc does not suggest causes that might underlie these different types of DD. Nevertheless, one or more of these DD difficulties will likely be encountered by teachers and/or clinicians. Three questions require answers: (1) are each of these categories separate types of dyscalculia; (2) what intervention process is appropriate for these DD difficulties; and (3) what is the impact of invention on maths abilities more generally. Moreover, these descriptions of DD do not consider its origins.

Developmental Dyscalculia: Contemporary Neuropsychological Research Evidence

Current neurological and/or genetic research evidence suggests DD is a core number deficit (Reeve & Gray, 2015). Twin studies show that

[2]Brian Butterworth: www.mathematicalbrain.com; Roi Cohen Kadosh: https://cohenkadosh.psy.ox.ac.uk; Anna Wilson: Dyscalculia—www.aboutdyscalculia.org.

DD may be heritable (Butterworth & Kovas, 2013): genetic analysis suggests number ability is heritable (accounting for 32% of shared variance—see Tosto et al., 2014). Analyses of atypical genetic family groups suggest a possible locus on the X chromosome, though this does not mean that all cases of dyscalculia are necessarily inherited or associated with the X chromosome (Rodic et al., 2015). Functional neuroimaging confirms specific brain areas are activated by numerical processing (Butterworth, 2010) and are neuroanatomically distinct from regions serving general executive functions (Nieder & Dehaene, 2009).

Since DD is thought to have a genetic/neurological component, a research goal has been to identify procedures that identify core number deficits as early in life as possible. Research has identified at least two core number abilities, namely, the abilities to rapidly and precisely enumerate small sets of objects (e.g. dots) and rapidly comparing the magnitude of quantities (e.g. identifying which of two sets of dots contains more dots) support maths development (Reeve et al., 2012).

Number/quantity comparison tasks assess the speed and accuracy with which the relative magnitude of two numerical values is identified (e.g. "which quantity/number is larger") (Locuniak & Jordan, 2008 Reeve et al., 2012). DD children experience difficulties making number/quantity comparisons (Price, Holloway, Räsänen, Vesterinen, & Ansari, 2007; Reeve et al., 2012). Price et al. (2007), for example, showed that compared to non-DD children, DD children were less accurate, and were much slower in making comparison judgments. They also found non-symbolic magnitude comparison abilities (e.g. comparing the numerosity of dots in two arrays) predicted arithmetic abilities.

The failure to quickly name small sets of objects (e.g. dots) without counting (known as subitizing) is also implicated in DD (Landerl et al., 2004; Reeve et al., 2012). Children who are unable to subitize are unable to specify the numerosity of small numbers of dots without counting, and are also very poor at arithmetic (Arp, Taranne, & Fagard, 2006; Landerl et al., 2004; Reeve et al., 2012). Subitizing deficits are associated with right parietal disruptions, particularly the intraparietal sulcus and evident in several disorders, including Turner's syndrome (TS) (Bruandet, Molko, Cohen, & Dehaene, 2004), cerebral palsy (CP) (Arp et al., 2006), Velocardiofacial syndrome (VCFS—also known as Chromosome 22q11.2 Deletion syndrome, or DS22q11.2) (Simon, Bearden, Mc-Ginn, & Zackai, 2005), Fragile X syndrome (FXS), and Williams (WS) syndrome (Paterson, Girelli, Butterworth, & Karmiloff-Smith, 2006). From a diagnostic perspective, the failure to subitize is associated with difficulty linking number words and sets, the acquisition of cardinal meaning of number words, part-whole number relations, and transformations of set numerosity (i.e. arithmetic) (Reeve & Gray, 2015).

Evidence for the existence of the two core number systems in infancy is well documented. Infants' ability to discriminate difference between two non-symbolic quantities (i.e. sets of objects) has been found in several paradigms: habituation (Xu & Spelke, 2000), cross-modal discrimination (Izard, Sann, Spelke, & Streri, 2009), and numerical change detection (Starr, Libertus, & Brannon, 2013). Izard and colleagues showed that newborns (49-h-old neonates) could discriminate between two numerosities presented in different modalities (i.e. visual and auditory), which suggests infants possess something akin to an abstract representation of quantity. Infants are also able to represent small numbers of objects precisely. For instance, findings from manual search and ordinal choice paradigms suggest infants can precisely represent and keep track of sets of 1, 2, and 3 objects, but not 4 objects or more (Feigenson & Carey, 2005; Feigenson, Carey, & Hauser, 2002).

We suggest that both precise number enumeration and number comparison abilities should be used as DD markers in young and older children—we return to this point in the next section.

Developmental Dyscalculia: Assessment and Interventions

Most educators and school psychologists are aware that significantly more is known about reading instruction, assessment, and intervention

than about mathematics (Maricle, Psimas-Frazer, Muenke, & Miller, 2010). There is not currently one assessment battery that is used to diagnose a mathematics learning disability. Most practitioners utilize a combination of standardized assessments of cognitive ability and academic achievement to detect patterns that may explain a student's deficient mathematical performance. Given the number of cognitive abilities that are utilized within the academic area of mathematics, a comprehensive assessment is needed to fully evaluate the possible factors that may impact acquisition and utilization of maths skills. An accurate assessment is not only extremely important to fully understand the area of deficit, but is also crucial for the development and implementation of an appropriate intervention.

Cognitive Assessments

An assessment to determine the presence of a learning disability in the area of mathematics should fully assess the cognitive processes that have been found to be associated with maths performance. According to Carroll-Horn-Cattell (CHC) theory of cognitive abilities, quantitative knowledge and reasoning (Gq), Comprehension Knowledge (Gc), Fluid Reasoning (Gf), Short-Term Memory–Working Memory (Gsm/Gsm-Wm), Processing Speed (Gs), Visual-Spatial Thinking (Gv) and at a young age, Auditory Processing (Ga) have been found to have an impact on mathematical knowledge and performance (Floyd, Evans, & McGrew, 2003; Mather, Wendling, & Woodcock, 2001). With regard to Gq, measures of calculation, maths fluency, quantitative concepts, and applied problems are logically associated with academic achievement in the area of mathematics. Research has indicated that Gc, which is often defined as the breadth and depth of an individual's store of accumulated knowledge of a culture and the effective use of that knowledge (McGrew & Flanagan, 1998), is associated with mathematical ability in that maths skills are associated with comprehension knowledge of mathematics (Maricle et al., 2010). Fluid reasoning (Gf) is defined as the ability to form and recognize logical relationships among patterns and made deductive and inductive inferences (McGrew, 2005). Gf was found to have a moderate correlation with mathematical calculations and moderate to strong correlation to maths reasoning skills (Floyd et al., 2003). Short-term memory, specifically working memory, has also been found to play an important role in mathematical achievement, as all mathematical tasks require the ability to hold numerical quantities within short-term, working, or long-term memory (Maricle et al., 2010). Processing Speed (Gs), or the ability to perform simple cognitive tasks quickly and efficiently, is related to the automaticity of retrieval of simple maths facts, often measured in tasks of mathematical fluency. Students with deficits in Gs would likely perform poorly on mathematical tasks that are measured under time constraints (Maricle et al., 2010). The relationship between visual-spatial thinking (Gv) and mathematics achievement has revealed mixed findings, with some studies indicating that Gv plays a negligible role in calculation and higher-level maths skills, while other researchers suggest that visual-spatial abilities are associated with the development of mathematical skills (Floyd et al., 2003). While this area should certainly be assessed as part of a comprehensive assessment battery, it need not be the focus of an evaluation of a child experiencing difficulties in the area of mathematics. Lastly, Auditory Processing (Ga), or the ability to perceive, attend to, and analyse patterns of sound and speech, has been found to be associated with the early stages of development of mathematical calculation skills (Floyd et al., 2003).

There are a variety of standardized assessments which allow for the evaluation of these cognitive processes, including the Wechsler scales, the Woodcock Johnson assessment batteries, the Kaufman assessment batteries, and the KeyMath diagnostic assessment (see Table 1).

The Woodcock Johnson III: Tests of Cognitive Abilities (WJIII-COG, Woodcock, McGrew, & Mather, 2001a) is based on CHC theory and therefore assesses all of the areas described above. The WJIII-COG allows for the assessment of Gc, Gf, Gsm-Wm, Gv, and Ga. The Woodcock Johnson IV: Tests of Cognitive Abilities (WJ IV

Table 1 Battery of tests useful in assessment of mathematical abilities

Assessment instrument	Associated areas measured
Wechsler (WAIS-IV[a]; WISC-IV[a] or WISC-V; WPPSI-IV[a])	Verbal comprehension, working memory, perceptual reasoning, and processing speed
Woodcock-Johnson (WJ III COG[a]; WJ-IV COG)	Crystallized intelligence, fluid reasoning, short-term memory/working memory, visual-spatial processing, auditory processing
Wechsler Individual Achievement Test (WIAT-II[a], WIAT-III)	Academic achievement, specifically mathematical calculation, applied problem-solving, and maths fluency
Woodcock-Johnson (WJ III ACH[a]; WJ IV ACH; WJ IV ECAD)	Academic achievement, specifically Quantitative Reasoning (Gq), with tasks assessing calculation, maths fluency, quantitative concepts, and applied problems. WJ IV ECAD includes specific subtest on number sense (magnitude and quantity estimations)
Kaufman Assessment Battery for Children (K-ABC-II)	Assesses short-term memory, visual-spatial thinking, long-term retrieval, fluid reasoning, and comprehension knowledge
Kaufman Test of Educational Achievement (KTEA-III)	Academic achievement measuring mathematical concepts and application, maths computation, and maths fluency
KeyMath 3 Diagnostic Assessment[a]	Basic mathematical concepts, computational skills, and problem-solving
Dyscalculia Screener	Computerized measure assessing dot enumeration, number comparison, single digit arithmetic, and reaction time

[a]Indicates Australian versions/norms or Australian and New Zealand language adapted editions are available

COG, Schrank, McGrew, & Mather 2014a) was recently published, though Australian norms have not yet been created for this measure. The Kaufman Assessment Battery for Children—Second Edition (KABC-II, Kaufman & Kaufman, 2004) also assesses various CHC factors including Gc, Gf, Gsm, and Glr (long-term retrieval). The Wechsler Intelligence Scale for Children—Fourth Edition (WISC-IV, Wechsler, 2003) is also widely used standardized assessments for evaluating learning difficulties in the area of mathematics. The Wechsler Intelligence Scale for Children—Fifth Edition was recently published (WISC-V; Wechsler, 2014), though Australian norms are not yet available. Both the WISC-IV and WISC-V assess verbal comprehension, working memory, perceptual reasoning, and processing speed.

Assessments of Academic Achievement

In addition to assessing specific cognitive areas associated with the acquisition and development of mathematics skills, a specific assessment of mathematical achievement should be conducted in order to determine where, in fact, the breakdown in skills occurs. This can be difficult using current standardized assessment measures of academic achievement, as it was been noted that these are often too general and include too many different types of items in order to truly lead the examiner to the specific cause of a student's difficulty in mathematics.

The Woodcock Johnson III: Tests of Achievement (WJIII-ACH) (Woodcock et al., 2001a, 2001b) has subtests assessing Quantitative Reasoning (Gq), with tasks specifically assessing calculation, maths fluency, quantitative concepts, and applied problems. Updated Woodcock Johnson batteries including the Woodcock Johnson IV Tests of Academic Achievement (WJ IV ACH) (Schrank, McGrew, & Mather, 2014b) and the Woodcock Johnson IV Early Cognitive and Academic Development (WJ IV ECAD) (Schrank, McGrew, & Mather, 2015) have been recently published. Though Australian norms have not yet been developed for these measures, they include subtests specifically assessing quantitative reasoning. The WJ IV ECAD, which can be used with children between the ages of 3 and 7 years or those up to 9 years old with a documented cognitive delay, includes a subtest entitled Number Sense, which assesses number recognition, counting, and sequencing as well as magnitude and quantity estimation (Schrank et al., 2015), allowing for early detection of some of the core deficits involved in developmental dyscalculia. The Wechsler Individual Achievement Test—Third Edition

(WIAT-III) (Wechsler, 2009) The WIAT-III assesses mathematical calculation, applied problem-solving, and maths fluency. These assessment measures also both contain subtests assessing reading skills, which may be important to examine if it is found that a student's deficits in mathematics may be associated with difficulties in reading and comprehending instructions or the content word problems.

The Kaufman Test of Educational Achievement—Third Edition (KTEA-III, Kaufman & Kaufman, 2014) is also an individually administered standardized assessment battery that allows for the examination of mathematical skills including arithmetic concepts, application of mathematical principles and reasoning, number concepts, operations, time and money, concepts of measurement, geometry, and higher-level mathematical concepts. Items are presented in an auditory format but include a visual stimulus. This assessment measure also includes a paper-and-pencil computation task that requires the examinee to solve written mathematical problems including addition, subtraction, multiplication, division, fractions, decimals, square roots, exponents, and algebra (Lichtenburger & Smith, 2005).

In addition to the above-mentioned general assessments of academic achievement, assessment measures specifically examining mathematics are also available. KeyMath 3 Diagnostic Assessment (Connolly, 2008) is a standardized assessment measure for individuals between the ages of 4½ and 21 years that evaluates three general content areas: basic mathematical concepts, computational skills, and problem-solving.

It is evident that a number of standardized psychometric tests can be used to diagnose children's arithmetic difficulties. The question of whether these tests are able to diagnose DD specifically remains. We suggest that one way to address this issue would be to use a two-phase test approach to the assessment of DD. Standard psychometric tests would comprise the first phase, and a neurological core number test could comprise the second more definitive phase. Butterworth's (2003) Dyscalculia Screener test (available in Australia) could serve the latter purpose (as could specifically designed number comparison and precise number, dot enumeration tests—described in the previous section). The Dyscalculia Screener is a computerized test in which the examinee uses the keyboard to respond. This assesses both symbolic and non-symbolic mathematical skills such as dot enumeration, number comparison, and single digit arithmetic. This screener also records reaction time, thus assessing both accuracy and speed.

We see several advantages for a two-phase test approach. As noted earlier, there are many reasons for being poor at maths and psychometric tests will not differentiate among these reasons and DD. On the basis of extensive core number research (described above) however, we know that number comparison and precise number test do differentiate between DD and other reasons for being poor at maths. Moreover, the two core number tests can be used with very young and older children, as well as adults, to identify dyscalculia.

Patterns in Deficits Associated with Developmental Dyscalculia

When examining the patterns of deficits or weaknesses found in the results of cognitive and academic testing, it is helpful to keep in mind the suggested subtypes of this disorder that were previously described within this chapter. Hale et al. (2008) suggest that the Numeric-Quantitative Knowledge subtype of developmental dyscalculia is most commonly associated with below average performance on tasks of numerical operations and slightly below average scores in the area of maths reasoning. In addition, these individuals commonly present with low average skills on tasks of working memory and processing speed (particularly on the WISC-IV). These deficits are all associated with the horizontal intraparietal sulcus, which is located within the parietal cortex.

In contrast, the Dyscalculia-Gerstmann Syndrome is associated with a different pattern of deficits. Wilson and Dehaene (2007) describe individuals with this subtype of dyscalculia to have severe deficits on tasks of numerical operations as well as maths reasoning tasks, in addition to low average verbal comprehension abilities.

In examining cognitive profiles, students with this pattern of deficits demonstrate their poorest performance on the following WISC-IV subtests: Information, Arithmetic, Block Design, and Picture Completion. Deficits are also found within the area of processing speed (Hale et al., 2008). This subtype of dyscalculia is associated with impairments in the left parietal lobe, specifically the angular gyrus, left inferior frontal and/or temporal language areas, or the left basal ganglia (Wilson & Dehaene, 2007).

The Mild Executive/Working Memory subtype of developmental dyscalculia (Hale et al., 2008) is, as its name suggests, mild with regard to deficits found on mathematics subtests. This subtype reflects those with average performance in the areas of numerical operations and maths reasoning, and the majority of cognitive skills intact. Individuals with this subtype may have difficulty on tasks such as Information, Digit Span Backward, Arithmetic, and Matrix Reasoning. This is related to frontal-striatal dysfunction.

The Fluid/Quantitative Reasoning subtype is associated with average numerical calculations, low average maths reasoning, and difficulties on tasks of fluid reasoning such as Matrix Reasoning and Picture Concepts. Difficulties on the Arithmetic subtest of the WISC-IV were also found to be associated with this subtype (Hale et al., 2008).

School psychologists are typically familiar with many of the assessment tools described above, which makes the role of school psychologists extremely important in the identification of developmental dyscalculia in youth. Careful analysis of the pattern of deficits within these evaluations allows for accurate diagnoses to be made, as well as identification of the appropriate interventions to target areas of deficiency.

Additional Considerations in Assessing Difficulties in Mathematics

The presence of anxiety as it relates to performance in mathematics should be considered, and screened for when deemed appropriate. Mathematics anxiety has been associated with poor mathematical performance (REF). The Revised Mathematics Anxiety Rating Scale (RMARS; Alexander & Martray, 1989) is a 25-item checklist to assess for the presence of anxiety related to mathematical tasks and performance. The addition of such a measure into a larger assessment of mathematical ability could assist in identifying anxiety, which may be contributing to or exacerbating difficulties in the area of mathematics, as intervention may also be appropriate within the emotional as well as academic realm. In addition, it is important to rule out other aspects, which may have an impact on academic achievement such as a lack of behavioural engagement (i.e. conduct problems, poor school attendance). These may have a detrimental impact on academic achievement without the presence of a true learning disability (Wang & Eccles, 2011).

Obstacles to Identifying Appropriate Interventions

Several key factors make it difficult when attempting to determine which intervention(s) may be appropriate in remediating mathematics deficits in a particular student. First, the academic area of mathematics is vast, involving a wide variety of knowledge, skills, and procedures. These range from basic concepts such as number identification and counting to more abstract concepts such as time, speed, and direction. Depending on the grade of the student, he/she may be required to recall specific computational facts and procedures, estimate magnitudes, and solve complex word problems requiring the student to independently determine the necessary mathematical operation. While all of the above-mentioned tasks are related to mathematics, they involve a variety of cognitive processes, which leads us to the second factor complicating the determination of an appropriate intervention: the current lack of a comprehensive theory of the cognitive processes related to mathematical learning disabilities. This lack of consensus has resulted in a large number of specific cognitive abilities that may be impacting the development and/or utilization of mathematical

skills and knowledge. Cognitive processes including working memory (Mabbott & Bisanz, 2008; Meyer, Salimpoor, Wu, Geary, & Menon, 2010; Zheng, Swanson, & Marcoulides, 2011), executive functions (Mazzocco & Kover, 2007) including set shifting (Clark, Pritchard, & Woodward, 2010), inhibition (Andersson, 2008), planning, self-regulation (Montague, 2007), and metacognition (Rosenzweig, Krawec, & Montague, 2011) all appear to play a role in the application of mathematical skills.

One final challenge in determining an effective intervention for deficits in mathematics is the high rate of co-morbidity that dyscalculia has with other disorders. Dyslexia and dyscalculia co-occur frequently, with an estimated combined prevalence of 10 % and a co-morbidity rate of approximately 40 % (Wilson et al., 2015). This is particularly problematic when a student presents with difficulties with word problems or story problems, which require a student to identify what information is relevant, what information is missing, and what calculation must be performed (Fuchs et al., 2008). Another developmental disorder that often co-occurs with developmental dyscalculia is Attention Deficit/Hyperactivity Disorder (ADHD), with estimated co-morbidity rates ranging from 5 to 30 % (Capano, Minden, Chen, Schachar, & Ickowicz, 2008; Langberg, Vaughn, Brinkman, Froehlich, & Epstein, 2010; Mayes & Calhoun, 2007; Miranda, Soriano, Fernández, & Meliá, 2008). The lack of attention to detail and self-monitoring while engaging in mathematical calculations clearly has the potential to negatively impact accuracy.

The multiple demands, cognitive processes, and possible co-morbidities associated with deficits in mathematics point to the need for a comprehensive assessment in order to provide information regarding the potential impact of all of these factors in order to determine which areas may be contributing to the deficit in this academic area. Given the number of factors that may be involved in mathematical deficits, many interventions involve multiple components and dimensions. There is not one instructional method or intervention that will work for all students (Fuchs et al., 2008), and it is important to utilize a student's baseline level of functioning and mathematical knowledge when choosing an intervention.

General Components of Effective Interventions

School psychologists are essential in determining the appropriate interventions, which should not only be based in empirically based techniques, but should also directly target the skills that were found to be area of deficit in the formal assessment conducted. Fuchs et al. (2008) suggested seven guiding principles for effective interventions for students with mathematical disabilities. The first principle suggested is instructional explicitness, which involves didactic instruction which directly addresses the information that the child needs to learn. Building upon this, the second principle focuses on the instructional design to minimize the learning challenge of the student. This involves clear and precise explanations of logically sequenced instruction in order to assist the student in closing the achievement gap. Methods should utilize and focus on the strengths of a student in order to maximize the chance for success. The third guiding principle for effective interventions is to utilize a strong conceptual basis for any procedures that are taught. If a student has a true conceptual understanding of what he/she is learning, it will help prevent learning gaps, failure to maintain skills, and difficulty with integration of skills. Only after a student has a firm conceptual understanding of the processes being taught, these skills should be drilled and practised. The fifth principle involved a cumulative review in order to incorporate not only the skill that has just been taught, but those on which it was based or is related. Another important principle that is often overlooked is the use of motivators to help students regulate their attention and behaviour. When a student realizes that a particular subject area, skill, or activity is difficult for him/her or when he/she has experienced repeated failure, this may result in avoidance or emotional stress. In order to address this, the use of motivators or reinforcers is important. These can either

be tangible in nature or may be more intrinsic ("beat your score"). Regardless, those working with students must keep in mind the need to address their level of motivation, attention, and self-regulation (see www.interventioncentral.org/behavioral-intervention-modification for examples). Lastly, ongoing progress monitoring must occur in order to determine if the intervention being utilized is effective for the student. Despite the use of an empirically based intervention, progress monitoring must occur in order to determine if the intervention being utilized is effective for a particular student. Curriculum-based measurement (CBM) is often utilized in order to determine the effectiveness of an intervention for a given student (Hosp, Hosp, & Howell, 2007). This classroom-based assessment is short in duration, typically lasting only a few minutes. The teacher utilizes the mathematics curriculum and administers a test assessing specific concepts/applications or calculations, and counts the number of correct and incorrect responses made in the time allotted to find the child's score. Scores can be graphed weekly in order to determine if progress is being made. (Curriculum-based measurement resources can be found at http://www.interventioncentral.org/teaching-resources/downloads)

Early Numeracy Interventions

Early numeracy skills such as counting, number knowledge, and number operations have been found to be highly predictive of mathematical computation and problem-solving skills through the third grade, even when variables such as reading ability, age, and general cognitive factors were controlled for (Jordan, Glutting, & Ramineni, 2009; Jordan, Glutting, Ramineni, & Watkins, 2010; Jordan, Kaplan, Ramineni, & Locuniak, 2009; Locuniak & Jordan, 2008). In addition, knowledge in these areas forms the foundation for higher-level mathematics skills. As such, interventions within this area are important for early learners who are struggling in the area of mathematics. Several interventions have been developed that target early numeracy skills, including the *Number Sense Interventions* (Jordan & Dyson, 2014). This programme was developed by researchers in the field of number sense and early numeracy, and provides evidence-based interventions for the development of key maths skills such as oral counting, number recognition, and numeral writing. It includes 24 scripted lessons of approximately 30 min each. Specific skills addressed involve recognizing quantities and numerals, making associations between numerals and quantities, writing numerals, solving story problems, and solving written equations.

Mathematics Fluency Interventions

Maths fluency is the ease and accuracy of carrying out a basic calculation, and is an important tool for solving most basic maths problems. Developing automaticity with basic maths facts may improve a students' ability to learn, develop, and apply more advanced mathematical skills and concepts (Shapiro, 2004). A simplistic intervention that has been utilized in order to assist students in increasing fluency and accuracy in basic mathematical skills is the Cover-Copy-Compare (CCC) method (Hansen, 1978; McGuigan, 1975). This method was initially utilized to assist students in improving their spelling, but has since been extended to mathematics facts (Skinner, Turco, Beatty, & Rasavage, 1989). Students are taught to view multiplication problems and their associated answers on the left side of a sheet of paper, cover up the problem and answer, write the problem and answer on the right side of the page, and uncover to check their response. Students proceeded to the next problem if a correct response was made or rewrite the response if it was incorrect. The Cover-Copy-Compare method and variations of this basic procedure incorporate several components of effective instruction such as modelling, opportunities to practise, and corrective feedback. Though this method is simplistic, a meta-analytic study looking at the effects of the CCC method and variations of this procedure found that such interventions are effective in assisting students in acquiring knowledge of mathematical facts and

increasing mathematics fluency. The strongest effects were found when this method was utilized in conjunction with other evidence-based interventions (Joseph et al., 2012).

Metacognitive Interventions

Metacognition refers to higher-order thinking strategies that assist in controlling cognitive processes in order to execute a task. In solving mathematics problems, several metacognitive processes may be utilized: visualization, estimation, self-instruction, and self-questioning (Rosenzweig et al., 2011). The use of metacognitive skills is often assessed using "think-aloud protocols" in which individuals actively verbalize their thoughts and cognitive activities while engaging in an activity (Ostad & Sorenson, 2007). Such "think-aloud" methods may be useful in determining specific areas of weakness in a student's skills, specific error patterns, or the use of inappropriate strategies during problem-solving activities. Specific interventions have been developed that focus on strengthening metacognitive skills in order to improve mathematical problem-solving. *Solve It*! is a scripted curriculum designed to teach mathematical problem-solving by engaging students in a series of steps that allow them to actively participate in metacognitive processing and demonstrate higher-order problem-solving skills (Montague, 2003). *Solve It*! can be utilized to teach mathematical problem-solving skills by explicating teaching students how to understand a task, analyse and solve a problem, and evaluate their answer. This intervention includes aspects which address metacognitive skills such as self-instruction, self-questioning, and self-monitoring through use of a SAY, ASK, CHECK procedure (Rosenzweig et al., 2011). Research has demonstrated that middle school students who received *Solve It*! instruction reported using significantly more strategies than students who did not receive this intervention, and appears to improve students problem-solving accuracy by providing them with an increased number of effective strategies to successfully solve problems (Krawec, Huang, Montague, Kressler, & de Alba, 2013).

Quantitative Reasoning/Problem-Solving Interventions

Many students possess the ability to correctly solve basic mathematical calculations, but experience difficulty when required to engage in higher-level problem-solving. *FAST DRAW* is an evidence-based intervention that utilizes an eight-step strategy to assist students in systematically solving mathematical word problems. FAST DRAW is a mnemonic for the steps to remind the students what information must be gathered and the sequence in which they should gather that information. First the student must **F**ind the question within the problem, then **A**sk themselves to identify the parts of the problem. Once this is complete, the student can **S**et up the numbers in a vertical format and **T**ie down the sign or numerical operation that should be utilized. The student **D**iscovers the sign that must be utilized to perform the operation, **R**eads the problem, thinks of the **A**nswer or draws lines to figure out the answer, then **W**rites the answer down (Harris, Miller, & Mercer, 1995).

School psychologists should play several roles in intervening with students with developmental dyscalculia. Not only should school psychologists consult with teachers in determining the most appropriate intervention given the specific areas of deficit, but they should also be actively involved in assisting teachers in ensuring that the interventions are being implemented appropriately. Lastly, progress monitoring and analysis of this data is essential in order to determine the effectiveness of the intervention. School psychologists must be continually checking in to ensure that the intervention being utilized is resulting in improvement in skills. Unfortunately, however, many schools in Australia are not resourced appropriately to have a school psychologist on staff to spend the time needed to diagnose DD, capacity build teachers to provide the most appropriate individualized intervention for DD, ensure fidelity to a treatment approach, and evaluate outcomes. What a difference it would make to many students struggling with DD (and other learning disabilities) if they had access to school psychologists who could provide this level of support.

Developmental Dyscalculia: Summary

The purpose of this chapter has been to review the status of DD knowledge and especially the implications for assessment and intervention practices. We began the chapter by emphasizing the value of numeracy for survival in today's world; and in our view, this value will increase further rather than diminish. Despite a relatively lack of investment in DD from national funding agencies, we now understand a great deal about the neuropsychological bases of DD, and in particular the significance or core number deficits. The diagnostic importance of the two core number deficits (i.e. precise number and approximate number abilities) cannot be understated. We know that these two abilities can be assessed from infancy upwards, and that performance differences in them are associated with maths performance throughout the childhood years. We suggested that data from core number assessment (e.g. Butterworth's, 2003, Dyscalculia Screener) could be used to supplement data from traditional psychometric assessments of maths difficulties. As noted earlier, there are many reasons for being bad at maths, differences among which will not be identified by psychometric tests. We advocate a two-phase test procedure for identifying DD: in the first phase, a psychometric test is used to identify maths difficulties; in the second, a core number test is used to identify DD. Given that we are able to identify DD with more precision, it remains to be seen what kind of intervention processes will best work with children with DD. The variability in areas of deficit in children with DD makes it difficult to make general statements about specific interventions, several empirically based interventions exist that have been found to be effective in the development of mathematical understanding, skills, and abilities in a variety of areas (i.e. early numeracy, fluency, quantitative reasoning).

Case Study

Student: John Smith
Age: 7 years, 8 months
Year: 1
School: ABC Primary School

Reason for Referral

John was referred to the school psychologist by his teacher due to difficulties with basic mathematical principles such as addition and subtraction.

Background Information

John was born following an uncomplicated pregnancy, and no concerns arose during or after delivery. He achieved all developmental milestones within normal limits. There are no concerns regarding John's hearing or vision. John began attending school at the age of 5. His family moved after his first year of schooling, and John adjusted to his new school and home without difficulty. It was reported that John has experienced difficulties in the area of mathematics since beginning school. His parents report it took John longer than expected to learn to count with one-to-one correspondence, and as such he had difficulty identifying quantities accurately. John's current teacher reported that John's accuracy in counting has improved significantly, but he often provides incorrect answers on basic addition and subtraction problems. He does not appear to automatically recognize the answer to basic maths problems without having to actively carry out the calculation. No concerns regarding John's behaviour, attention span, or other academic areas were reported.

Classroom Observations

John was observed in his classroom in order to gain additional information regarding his reported difficulties, and a mathematics work sample was reviewed. When the teacher instructed the class to take out their maths books, a sudden change in John's affect was observed. While he was smiling and appeared quite content during the previous

lesson, John was noted to lower and shake his head before retrieving his book. John was able to follow all teacher directives during a lesson, but appeared to have difficulty completing independent work. He was noted to look around at his peers while they worked. John's teacher noticed this and came to his desk in order to review the lesson in relation to his independent work. An analysis of John's work sample revealed frequent errors on rather simplistic addition and subtraction problems. His answer was frequently off by one or two, and on multiple occasions John carried out the incorrect mathematical operation (e.g. added instead of subtracted).

Tests Administered

Wechsler Intelligence Scale for Children, fourth Edition (WISC-IV)
Wechsler Individual Achievement Test, second Edition (WIAT-II)
Dyscalculia Screener

Summary of Test Results

Results indicated John's verbal comprehension and perceptual reasoning abilities fell within the average range compared to his same-aged peers, while his working memory fell within the low average range and his processing speed fell below average. Assessment of John's ability in the area of numerical operations fell significantly below average, as he was unable to correctly calculate single digit addition or subtraction problems. John's mathematical reasoning ability was found to be within the lower limits of the average range, indicating stronger abilities when working with applied problems as opposed to straightforward calculations. In contrast, John's abilities in the areas of reading, writing, and oral language all fell within the average range for his current grade level.

The results of the Dyscalculia Screener revealed John does not possess automaticity with regard to basic mathematical concepts such as number comparison. His reaction time when asked to determine which number was quantitatively larger was significantly longer than would be expected given his age, and his overall accuracy was far below the expected level. These results confirm that John does not possess some of the foundational knowledge upon which mathematical operations such as addition and subtraction are built.

Overall, the findings from the psychoeducational assessment combined with John's educational history were consistent with the diagnostic criteria for a specific learning disorder with impairment in mathematics, otherwise known as dyscalculia.

Educational Recommendations

Remediation	Accommodations
• Utilize an intervention that focuses on early number sense, and skills such as counting, number knowledge, and basic calculations (e.g. Number Sense Interventions)	• Allow John extra time to complete calculations, as his ability to solve problems is not yet automatic
• Help John develop the idea of number sequence by utilizing a number line to answer basic questions such as: "What number comes just before…?" "What number comes just after…?" Work with segments of numbers and fade use of the number line as each segment is mastered	• Emphasize quality over quantity or speed. Focus on accuracy, understanding, and persistence when working on maths problems rather than speed or rapid recall of facts
• Utilize multisensory teaching/learning practices as often as possible. Manipulatives such as blocks can be utilized to make calculations more concrete in nature	

Test Yourself Quiz

1. What is "number sense" and "numeracy" and how do these concepts relate to difficulties in mathematics?

2. What are some of the cognitive abilities associated with mathematics achievement? How does the wide range of cognitive skills involved impact the assessment process?
3. What guiding principles do Fuchs et al. (2008) suggest in identifying an appropriate and effective interventions for deficits in mathematics?

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Evidence-Based Assessment and Intervention for Problems with Writing in School Psychology

Robyn Kurasaki, Kimberley Bloor, Megan Sy, and Courtney Huguenin

Introduction

Writing is an essential skill for academic success and a crucial part of communication and critical thinking (Graham, Gillespie, & Mckeown, 2013). It is considered to be one of the most difficult academic areas to teach, learn and master as it involves the integration of many different skills and knowledge (Graham et al., 2013). This includes both low-level transcription skills (handwriting, spelling, punctuation and grammar) and high-level composition skills (planning, content, organisation and revision) (Graham & Harris, 2005). In order to express thoughts effectively in writing, one must generate the idea, plan what to write, how to write it and then translate the ideas into written text using appropriate grammar, syntax, spelling and legible handwriting. After competence in these foundation skills is established, one must integrate them within a broader cognitive system that requires knowledge of genre structure, text coherence and cohesion, and sense of audience (Lyon, Fletcher, Fuchs, & Chhabra, 2006).

The achievement domain of written language has not received the same attention from researchers, educators or legislators as reading or math. Therefore, comparatively, there is less international and national research focused on the development and assessment of writing, prevalence rates and effective ways of teaching and improving writing skills (Lyon & Cutting, 1998; National Commission on Writing, 2003; OECD, 2007). Nevertheless, it is clear that more research is needed as reports and national testing from both Australia and overseas clearly show that by the end of primary school and early secondary school, many students are still struggling to master the fundamentals of writing.

Defining Written Expression Disorder or Dysgraphia

Dysgraphia is the pseudo-clinical term used to describe a specific learning disorder in writing that is neurobiological in origin and more severe and resistant to remediation than the general difficulties encountered by weak writers (Cavey, 2000). It is characterised by difficulties with accurate and/or

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fluent written expression and by poor spelling and handwriting skills (Berninger & Wolf, 2009). It is commonly recognised that dysgraphia can be separated into two subtypes: motor-based dysgraphia, which is associated with difficulties with the mechanical aspects of writing and language-based dysgraphia, which is more consistent with delays in processing and sequencing ideas in writing.

Students with written expression disorders often have coexisting difficulties in other areas (Gillberg et al., 2004). For example, writing difficulties are frequently present in students with attention problems, due to the overlap in the executive functioning processes required for writing and attentional control (Gillberg et al., 2004). In addition, students with reading difficulties such as dyslexia, often exhibit difficulties in writing because of the commonalities in phonological and orthographic deficits (Rapcsak et al., 2009).

Classification and Diagnostic Criteria for Written Expression Disorder

Significant variation exists in the classification of writing difficulties and how specific areas of difficulty are to be prevented and remediated effectively due to the array of knowledge and skills required for successful writing. While the Disability Discrimination Act (1992) and Disability Standards for Education (2005) provide vague guidelines for supporting students within Australia, considerable variation exists between (and within) states due to variations in guidelines and jurisdictions and the limited funding provided for those that are diagnosed.

At a diagnostic level, the Diagnostic and Statistical Manual, Fifth Edition (DSM-5; APA, 2013) is, for the most part, the most commonly used diagnostic criteria in Australia in comparison with other criteria (i.e. ICD-10). The DSM-5 summarises written expression disorder, formally known as a specific learning disorder with impairment in written expression, as 'a pattern of difficulties learning and using academic skills in spelling accuracy, grammar and punctuation accuracy, and clarity or organisation of written expression' (APA, p. 67). Poor spelling or handwriting alone, in the absence of other writing difficulties, is insufficient for a diagnosis. These difficulties are anticipated to appear during school-age years, fall substantially below those expected for age (in the majority of cases), have the potential to significantly interfere with activities of daily living (including academic or occupational performance) and have persisted for at least 6 months, despite the provision of well-founded, targeted intervention. It is important to note that a specific learning disorder will not be diagnosed if the academic skill deficit is better accounted for by intellectual disability, uncorrected visual or auditory acuity, other neurological disorders, psychosocial adversity, a lack of language proficiency or inadequate instruction (APA, 2013).

Prevalence Rates of Written Expression Disorders

The incidence of written expression disorders is difficult to ascertain as there is no universally agreed-upon method for determining prevalence rates. Subsequently, estimates of the number of children who struggle with writing depend on how the definition for this construct is operationalised and the aspects of writing assessed. Fletcher, Lyon, Fuchs, and Barnes (2007) predicted that based on the rates of developmental language and reading disorders in the general population, written language disorders may affect at least 10 % of the school-age population. Other estimates vary from 6.9 to 14.7 % in primary school-aged children (Katusic, Barbaresi, Colligan, Weaver, & Jacobsen, 2009) to 6 to 22 % in middle school-aged children (Hooper, Swarz, Wakely, de Kruif, & Montgomery, 2002).

Skills for Effective Writing from a Developmental Perspective

Models of written language (e.g. Berninger, 1999; Hayes, 1996; Kellogg, 1996) demonstrate that writing is a complex skill (involving many cognitive, linguistic and motor resources) that

requires quality instruction across a student's academic development. However, even with appropriate instruction, students may still experience writing difficulties, which may in part stem from the developmental abilities the student brings to writing (e.g. Abbott & Berninger, 1993; Feder & Majnener, 2007; Hooper et al., 2002) (Table 1). Although no single model across disciplines incorporates all abilities and processes, studies have highlighted the role of these processes (e.g. cognitive, linguistic and motor) as they relate to specific writing tasks (Graham & Harris, 2003; Hooper et al.). Further, writing is a recursive and interactive interplay of these processes with both characteristics of the child and their learning environment. A brief description of each skill as well as the cognitive and linguistic correlates involved is provided below. For more information on the cognitive abilities related to writing as well as which cognitive batteries assess those abilities, readers are referred to Flanagan, Ortiz, Alfonso and Dynda (2013).

Handwriting. While handwriting is a low-level, mechanical skill, it is the primary means for composing when students are first learning to write and has been closely linked to the amount and quality of written composition from Grades 1 to 6 (Graham, Berninger, Abbott, Abbott, & Whitaker, 1997). The handwriting of struggling students is slower, less legible and poorly formed, and they make poor use of lines and space compared to the writing of typically developing individuals (Berninger et al., 2006). These weaknesses in handwriting have negative consequences for the development of written expression skills and may affect interpretation of meaning, as well as interfere with the execution of written composition due to the focus of cognitive resources on how to write rather than what to write (Berninger & Graham, 1998).

Weaknesses in handwriting skills originate from a variety of underlying skill deficits including readiness to write, fine-motor control (i.e. in-hand manipulation, grasp, bilateral integration and

Table 1 Common writing difficulties seen in the classroom

Lower primary school	Upper primary school	Secondary school
• Reading appears adequate, but difficulties with writing are apparent	• Writing is slow and dysfluent	• Legibility of handwriting is poor
• Avoids writing tasks	• Difficulties are more apparent as demands on writing ability increase through middle and upper primary school	• Difficulties writing at the same speed as their peers
• Letters are poorly formed	• The process of writing is effortful and tiring	• Great difficulties noted in transferring thoughts into written words
• Handwriting shows poor spacing and sizing of letters and words	• Handwriting is immature	• Apparent gap between oral and written language skills
• Letter forms are frequently confused	• Poor orthographic knowledge and lack of automaticity in spelling	• Knowledge and application of essay structure are underdeveloped
• Poor spelling	• Difficulty choosing correct spelling alternatives	• Lack of detail in written expression
• Difficulties learning basic sentence structure and grammar	• Sentence and paragraph structure is poor	• Written output is limited with far less work being produced in allocated writing time
	• Significant discrepancy between verbal ability and written skills	• Writing and spelling skills do not appear automatic

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motor planning), visual motor-integration, visual perception and poor trunk control and shoulder stability (Daly, Kelley, & Krauss, 2003; Feder & Majnener, 2007). In addition, handwriting can also be constrained by working memory, specifically the student's orthographic coding and orthographic-motor coordination (Christensen, 2004). Orthographic coding describes how one stores letters in short-term memory, while orthographic-motor coordination refers to how it is retrieved from long-term memory and formed into writing (Christensen, 2004). Therefore, students who have constrained working memory may have a difficult time storing and retrieving the information to complete their written response.

Spelling. Recent research suggests that the process of learning to spell involves multiple linguistic factors, namely, morphological, phonological and orthographic knowledge (Berninger & Amtmann, 2003; Reece & Treiman, 2001). Morphological knowledge refers to our understanding of the spelling of morphemes (the smallest meaningful unit of language) that a word contains (Apel, Wolter, & Masterson, 2006) and phonological knowledge (also known as phonological processing) refers to an individual's awareness of and ability to work with the sound structure of words. Therefore, a child with phonological difficulties is more likely to make spelling errors that involve the misrepresentation of phonemes within words or errors that are not phonemically plausible as they struggle with the segmentation of words into sounds and syllables, the sequencing of sounds, and tend to omit or add sounds (Ball & Blachman, 1991; Berninger, 1999; Roberts & Mather, 1997). Orthographic knowledge is the ability to understand and recognise writing conventions (e.g. common letter strings and patterns), as well as recognise when words contain correct and incorrect spellings. A child with orthographic processing deficits may struggle remembering the correct spelling pattern for a word, confuse and transpose letter patterns and overgeneralise rules (Roberts & Mather, 1997).

Written expression. Research has emphasised the importance of linguistic and cognitive factors that are crucial to the development of written composition skills and serve as the basis to more advanced writing skills. Linguistic factors include different components of language (e.g. syntax, morphology, semantics, vocabulary) and are significantly influential to text generation during the middle to late elementary school years (Fey, Catts, Proctor-Williams, Tomblin, & Zhang, 2004). Knowledge of phonology (speech sounds) and morphology (internal structure of words) can not only impact spelling, but can also affect the meaning of the text through word building (i.e. forming plurals, verb tense, adding affixes to root words). Additionally, the quality of a student's text generation is impacted by vocabulary. Students with vast word knowledge have the ability to build and provide the basic infrastructure of text (Dockrell, Lindsay, & Connelly, 2009).

Cognitive models of writing (Hayes, 1996; Kellogg, 1996) have suggested executive functions (EF) are critical to higher-level composition. Executive functions tapping into initiation, set shifting, problem solving, self-monitoring and attention regulations have all been linked to written expression in elementary-aged students (Hooper et al., 2002; Reiter, Tucha, & Lange, 2005) and across writing tasks including higher-level composition (Altemeier, Jones, Abbott, & Berninger, 2006). The EF receiving the most attention is working memory or the ability to temporarily store information in mind and manipulate it as needed for a brief period of time (Flanagan, Ortiz, & Alfonso, 2013). Working memory is important to writing because it allows the coordination of simultaneous processes needed to complete writing tasks such as holding and using multiple ideas, retrieving grammatical rules from long-term memory, translating ideas and continuously self-monitoring (Hooper et al; Kellogg; McCutchen, 1996). Poor writers have compromised working memory, and when other writing skills like transcription are not automatic, limited mental resources are available for text generation.

School psychologists require a working knowledge of the writing process and the factors that impact the development and quality of writing for a number of reasons. An understanding of writing development and its instructional, linguistic and cognitive factors will equip school psychologists with the knowledge to conduct comprehensive psycho-educational evaluations

that will extend beyond the identification of disabilities and assist in determining the aetiology of students' writing difficulties. School psychologists are often required to also serve a consultative role in schools; therefore, clinically useful information gained from a comprehensive assessment will better drive the selection and implementation of interventions and educational plans to assist struggling students.

Assessment of Written Language

Psycho-educational assessments are utilised by school psychologists for several purposes. They allow for the identification of writing problems and diagnosis of specific learning disabilities, which assists in educational planning and future academic and occupational success (Berninger, Nielsen, Abbott, Wijsman, & Raskind, 2008). Furthermore, assessments assist in identifying the student's learning strengths and weaknesses and examining cognitive and environmental factors that are likely to impact on the student's writing difficulties (Flanagan et al., 2013). Identifying specific writing difficulties can allow school-based teams to accurately ascertain instructional levels and select evidence-based interventions that take into account the specific skill, severity level and student characteristics. These factors may increase student task completion, comprehension and engagement and improve writing skills.

At the outset of the assessment, school psychologists should have a clear and working understanding of the referral concern and the child's intrinsic and ecological factors including a consideration of the child's cultural or linguistic background. To address the referral adequately, the school psychologist must have the appropriate background knowledge of the child's writing difficulties that extend beyond simple phrases like, 'the student has difficulty with writing'. Knowing what aspects of writing are weak for the student will help tailor the assessment to the child's needs. Therefore, school psychologists are encouraged to communicate with the student's teacher about their observations and perhaps obtain and review work samples. This information will allow school psychologists to identify the writing skills that need to be assessed to appropriately assess the student. As the development of writing is heavily impacted by instruction, comprehensive assessments should attempt to rule out poor instruction as the sole reason for the student's writing deficits through a thorough records review and interviews. In addition, school psychologists must obtain information about the child's social history, as well as information about their cultural and linguistic background (Schulz, 2009). This information is vital for test selection, interpretation and the generation of appropriate educational recommendations.

Once the nature of the referral is understood, school psychologists must select tests that will adequately assess students' skills and yield valid results. At their disposal, school psychologists can utilise standardised norm-referenced tests, curriculum-based measurement (CBM), records review and observations in their psycho-educational evaluation. Taken together, these assessment tools can provide a thorough picture of the student's current levels of functioning. Although school psychologists may not be administering CBM tools, they need to be able to interpret findings, as these tools, like writing rubrics, are often used by teachers in school-based settings.

Norm-Referenced Batteries

The majority of the assessment tools directly administered by school psychologists in the area of written language will be standardised norm-referenced batteries. These achievement batteries typically are part of a comprehensive psycho-educational assessment used to identify the current levels of functioning for students suspected of having a specific learning disorder. These tests allow a school psychologist to make evaluations in relation to age or grade-based norms based on national samples and provide a comparison group that is separate from the local context of a specific school (Berninger & Wagner, 2008). The ability to compare a student's performance against norms is critical in determining the student's strengths and weaknesses. In contrast to CBM, standardised test batteries may be used to diagnose a student and/or determine eligibility for special education.

Norm-referenced achievement batteries frequently include at least two writing-related subtests. The most commonly utilised instruments are listed in Table 2. Although each assessment differs in the type of writing subtests included, most batteries have at least one subtest that assesses spelling and one that involves sentence combining or composition. However, there is also a considerable

Table 2 Norm-referenced tests

Test	Publisher	Age range	Writing subtests	Skills assessed
Wechsler Individual Achievement Test, Third Edition (WIAT-III; Wechsler, 2009)	Pearson	4 years, 0 months to 50 years, 11 months	Alphabet writing fluency	Writing speed and accuracy
			Spelling	Spelling
			Sentence composition	Sentence combination and generation
			Essay composition	Organisation
				Theme development
				Grammar and mechanics
				Generation (word count)
Kaufman Test of Educational Achievement, Third Edition (KTEA-III; Kaufman & Kaufman, 2014)	Pearson	4 years, 6 months to 25 years, 0 months	Spelling	Spelling
			Written expression	Punctuation
				Capitalisation
				Structure
				Grammar
				Essay composition (flow, organisation, sequence, word generation)
			Writing fluency	Word generation
Test of Written Language, Fourth Edition (TOWL-4; Hammill & Larsen, 2009)	Pro-Ed	9 years, 0 months to 17 years, 11 months	Vocabulary	Sentence generation
			Spelling	Spelling
			Punctuation	Punctuation and capitalisation
			Logical Sentences	Identifying and editing illogical sentences
			Sentence combining	Integrating meaning of several sentences into one correct sentence
			Contextual conventions	Story composition (grammar, spelling, punctuation)
			Story composition	Story composition (vocabulary, prose, plot, organisation)
Oral and Written Language Scales, Second Edition (OWLS-II; Carrow-Woolfolk, 2011)	WPS	3 years, 0 months to 21 years, 11 months (writing subtest may only be administered to ages 5+)	Written expression	Spelling
				Punctuation
				Capitalisation
				Structure
				Grammar and syntax
				Vocabulary
				Pragmatics
Woodcock-Johnson IV Tests of Achievement (WJ-IV ACH; Schrank, McGrew, Mather, & Woodcock 2014)	Riverside	2 years, 0 months to 90+ years	Spelling	Spelling
			Sentence writing fluency	Writing speed and accuracy
			Writing samples	Sentence generation using target words/sentences
			Editing	Identifying and correcting errors

Note. The only test with Australian norms is the WIAT-III, as it has recently been normed with an Australian and New Zealand population of students

amount of variation in the writing tasks that each battery includes. For instance, not all instruments include subtests that require a student to compose an essay. Other tests include tasks that require the student to identify and edit errors (e.g. punctuation, capitalisation, spelling) in a passage. Determining which skills need to be assessed and identifying relevant characteristics of the student will therefore be crucial in test selection.

Overall, the standardised tests presented above demonstrate good reliability and validity, and most are reported to detect significant differences between students identified as having a writing disability and matched controls. This suggests that these tests are valid measures for identification and diagnostic purposes, as well as eligibility determinations for special academic provisions. However, norm-referenced tests frequently do not reflect the school's curriculum, and scores from these instruments may not provide adequate information when creating individual education plans for each student. Furthermore, the majority of standardised tests are normed using US samples. There is limited research on the validity of these instruments in assessing Australian students, as the WIAT-III is the only known battery with Australian norms.

An important consideration when interpreting written expression subtests is that they produce a singular global score. Because writing is a multifaceted process that involves several distinct skills, having one holistic score may fail to identify a student's specific weaknesses. This manner of assessment is product-oriented rather than process-oriented and fails to account for the complex nature of writing (Cho, 2003). Thus, these scores may appear inflated and without intra-subtest analysis may fail to highlight writing skills that may be weak and not represented in the overall score. Furthermore, there is data to suggest that weak writers may experience a succession of failures, wherein difficulties in one component may impede performance in another (Deane, Williams, Weng, & Trapani, 2013). For students who struggle with writing, it may therefore be more challenging to identify the causes of poor performance.

Finally, writing subtests, particularly those that involve written expression tasks (e.g. essay composition from the WIAT-III), involve scoring processes that may be time-consuming and cumbersome. Training and practice are sometimes required in order master these scoring techniques.

Curriculum-Based Measurement (CBM)

In addition to standardised achievement batteries, CBM tools and writing rubrics are used in schools (McMaster & Campbell, 2008). CBM assessment is psychometrically sound techniques (i.e. Espin, De La Paz, Scierka, & Roelofs, 2005; Gansle, VanDerHeyden, Noell, Resetar, & Williams, 2006; McMaster & Campbell) that utilise curricular material to collect data regarding a student's performance (Gravois & Nelson, 2014). CBMs are short in duration (e.g. 1–5 min) and contain alternate forms of equal difficulty that serve as a direct measure of performance. In contrast to a large standardised battery of written language, CBM probes can be given frequently, are sensitive to change and can serve as an evidence-based method of monitoring students' progress and informing decisions. Further, a working knowledge of CBM allows school psychologists to serve a consultative role on school-based problem solving teams where student achievement is reviewed and plans for remediation are created and monitored. In addition to being utilised as a progress-monitoring tool, CBMs can help school psychologists gather background information on the student's current levels. The convergence of data from multiple assessment sources promotes the validity of the evaluation. A list and description of CBM indices are provided in Table 3.

Writing Rubrics

Writing rubrics may be used to evaluate written expression in schools (Moskal, 2000). Unlike norm-referenced assessments, writing rubrics do not compare students to age or grade norms. Instead, they are designed as a tool for students and teachers, which define what is expected in order to get a particular grade on an assignment.

Table 3 Examples of CBM indices

Name	Writing skill	Description
Production-dependent indices		
Total words written	Written expression-length	Total number of words written during the designated time period including words spelled incorrectly
Correct word sequences (CWS)	Grammar	Number of two adjacent writing units (word/word) or (word/punctuation) acceptable within the context to a native English speaker
Production-independent indices		
Correct punctuation marks	Grammar	Number of punctuation marks correctly applied
Correct capitalisation	Mechanics	Correct use of capitalisation
Accurate-production indicator		
Percentage of words spelled correctly	Spelling	Total number of correctly spelled words divided by total spelled words
Percentage of correct word sequences	Written expression	Number of correct word sequences divided by total number of word sequences
Examples and Resources		
• Aimsweb (aimsweb.com)		
• Intervention Central Writing Probe Generator (http://www.interventioncentral.org/teacher-resources/curriculum-based-measurement-probes-writing)		
• studentprogess.org		

Many created rubrics focus on writer's purpose, organisation, details and mechanics such as spelling, grammar, syntax and punctuation/capitalisation. In addition to the elements of writing that are being assessed, rubrics describe the level of quality for each element, usually on a Likert scale (e.g. satisfactory, needs improvement). For students with weaknesses in writing, school psychologists could consult with teachers to utilise rubrics to identify the specific areas of need (e.g. organisation), as well as progress monitor the student's response to the teacher-delivered intervention for their writing weakness. Through consultation, the school psychologist may emphasise the importance of regularly reviewing the student's progress alongside the writing rubric and encourage the use of positive reinforcement to increase the student's performance and attention to improving the specified writing skill/s. Resources on the development of rubrics can be found at interventioncentral.org.

Other Assessment Tools

While conducting psycho-educational evaluations, a school psychologist can either conduct a classroom observation during writing or use dynamic assessment procedures where students can complete a writing sample. Observations can shed light on the student's writing process, and school psychologists can directly witness the student's skills and approach in the following areas: handwriting, spelling, planning and editing. These skills are important to the writing process, and despite being taught in the curriculum, the student may fail to apply previously learned information while writing. Behaviours important to the writing process can also be observed such as task engagement and response style. It is important to note whether students can actively attend and sustain their attention to task, whether they have any difficulty initiating the task and

whether they rush through the task. These behaviours provide the context surrounding the student's writing skill and help clarify whether there is a skill or performance deficit and thus how to intervene.

Evidence-Based Instruction and Intervention

In order to acquire all the skills necessary for successful writing, a highly structured, explicit and systematic teaching approach is needed with frequent opportunities for targeted application and practice. When such an approach is used, students with learning difficulties and disabilities show improvements in their foundational writing skills and have a greater chance of achieving an acceptable standard of writing (Berninger & Wolf, 2009). In order to adequately support students with writing difficulties, a mix of remediation (additional and more intensive instructional approaches and intervention) and compensation (assistive technology and classroom accommodations) is required; however, the amount of each will vary depending on the student's age and academic level (Edyburn, 2007).

For struggling writers, a remedial, small group intervention should be provided in order to allow them to 'catch up' with their peers and may take the form of early literacy support, intervention or booster classes. For students that continue to struggle following the provision of small group intervention individualised, intensive and sustained intervention using high quality evidence-based programmes should be provided (DfES (Department for Education and Skills), 2002). Intervention from external professionals such as occupational therapists, speech pathologists and specialised literacy tutors may also be recommended and sought to allow students the best possible opportunity to develop their writing skills and ensure their difficulties do not unduly impact their ability to function effectively within the classroom.

Effective Handwriting Instruction and Intervention

Explicit and direct instruction in handwriting is beneficial to both students with writing difficulties and those without (Howe, Roston, Sheu, & Hinojosa, 2013; Hoy, Egan, & Feder, 2011; Wolf, 2011). Handwriting instruction should be targeted at a level appropriate to the child's motor mastery and utilise an integrative and multisensory approach that provides repeated practice of naming the letter, identifying the sounds that the letter represents and writing the form of the letter. Such an approach assists in strengthening the recall of letters and aids the development of handwriting legibility, which in turn frees up cognitive space for the accurate recall of spellings and development of ideas for writing (Berninger et al., 2006; Wolf, 2011; Zwicker & Hadwin, 2009). It is therefore important that the link between handwriting and letter-sound knowledge is made explicit and emphasised frequently in the selected literacy programme. Alongside the use of a multisensory and explicit approach to teaching handwriting and letter formations, handwriting instruction and intervention should also be organised with attention to pencil grip, pencil pressure and writing posture and involve the use of a range of writing tools and media as detailed in Table 4.

Research clearly demonstrates that repetition and practice of learned skills are necessary for improvement in handwriting legibility (Howe et al., 2013; Hoy et al., 2011). It is therefore vitally important that regular handwriting instruction is integrated into the curriculum and classroom and forms a part of everyday teaching. For students that continue to struggle with the mechanics of handwriting, the provision of additional support will be necessary (Hoy et al., 2011). A Handwriting Club model (i.e. a small group, school-based programme targeting handwriting skills) is a natural intervention that may fit easily into the existing curriculum and allow students to intensively practise their handwriting skills through a variety of tasks (Howe et al., 2013).

Effective Spelling Instruction and Intervention

The ability to spell effortlessly and accurately is an important component of effective writing. Traditional spelling methods that involve the repetitious copying of words, memorisation of word lists and incidental 'teaching moments' do not provide students with the necessary knowledge they need to become proficient spellers. Instead, students who understand that speech sounds can be mapped in systematic ways to letters and that every word's spelling has an explanation are more likely to attend to the details in print and form lasting memories for the spelling patterns in words (Henry, 2003). Hence students require explicit and systematic spelling instruction in six key skill areas described below.

Phonemic and phonological awareness. Phonological awareness skills facilitate spelling and reading achievement (e.g. Ehri et al., 2001), and activities that promote these skills should be included in spelling instruction regardless of the students' age. For example, blending syllables or sounds to make words (e.g. 'gi – raffe' = giraffe, /'sh….ee….p'/ = sheep) and manipulating sounds in words (e.g. 'lost' without the /s/ is 'lot').

Phonics. Research indicates that basic literacy skills (i.e. reading and spelling) should be taught explicitly and simultaneously through the use of a structured and systematic phonics programme (e.g. Ehri, 2000; Weiser & Mathes, 2011). This is crucial to ensure students understand that reading and spelling are not separate and unrelated, but reversible processes.

Orthography (spelling patterns and conventions). In order to spell effectively, students need to learn the rules governing how words are represented in writing. This includes acceptable letter combinations, letter sequences and positional constraints (Graham, Harris, & Loynachan, 1996). For example, we learn that while <igh> is an acceptable alternative spelling for /i/, <ihg> is not.

Morphology. Instruction in morphology teaches students to identify and analyse units of meaning, enables them to clarify spelling choices, facilitates their spelling of multisyllabic words and assists with vocabulary and writing development (Adams, 1990; Brady & Moats, 1997). For example, students who understand that *dirt* is the base word of *dirty* will avoid errors like *dirdy*.

Etymology (word origins). Direct and explicit instruction in etymology (i.e. a word's language of origin) enables students to understand why some words are spelled in unexpected ways and assists them in determining the appropriate spelling for these words (Carreker, 2011). For example, knowing that long, scientific words are usually of Greek origin and that Greek words containing /f/ are usually spelt with a 'ph' will assist students in spelling words such as *photosynthesis*.

Metacognitive and memory skills. Teaching students how to problem solve or use memory 'tricks' can assist their retrieval of irregular or unusual spellings. This includes using the meaning of the word to provide clues, recalling other words with similar spelling patterns, use of a spelling voice to over-articulate certain sounds (e.g. *Wed-nes-day*) and using live, print or electronic resources (e.g. spellcheck, have-a-go pad).

There are a number of structured and systematic evidence-based programmes in use within Australia that reflect effective teaching and best practice for the development of phonics and spelling knowledge. These include, but are not limited to, Sounds ~ Write, Letters and Sounds, Jolly Phonics and Jolly Grammar, and MultiLit. All programmes have a tried and tested sequence that optimally develops students' skills, and it is therefore of great importance to ensure fidelity to the selected programme. That is, it is followed consistently, not simply selected for the parts that appeal. In addition to the use of a structured, systematic and explicit programme, there are a number of evidence-based strategies that can be used to enhance the spelling skills of struggling students, some of which are outlined in Table 4.

Effective Writing Instruction and Intervention

Many students who have difficulty with written expression have multiple experiences of failure in writing age-appropriate texts. If they are to

Table 4 Examples of research-based recommendations for effective writing instruction and intervention

Skill	Strategies	Accommodations
Handwriting	– Model how to form letters using visual cues (e.g. numbered arrows) and physical assistance (e.g. hand over hand) if required	– Allow extra time to complete work
	– Provide a range of tactile media to practise forming letters (e.g. sand tray, paint bag, shaving cream, finger paints, scented markers and vibrating or musical pens)	– Shorten written requirements
	– Provide a range of tools to assist with pencil grasp and/or pencil pressure (e.g. pencil grip, specialist pens/pencils, writing on bubble wrap/tissue paper, using thicker pens or a mechanical pencil)	– Allow breaks
	– If the handwriting problem is severe and impeding academic progress, occupational therapy may be of assistance	– Alternatives to hand-written assignments (e.g. computer, scribe, digital recorder)
		– Provide templates or blank graphic organisers
		– Reduce the amount of copying
		– For younger students, provide a visual prompt for correct letter formations, and the use of spacing tools and specialised writing paper (as necessary)
Spelling	– Introduce spelling words orally, then visually focusing on sounds	– Provide a spellchecker
	– Provide clear, corrective and immediate feedback	– Provide 'spelling cards' for persistently tricky words
	– Provide multiple opportunities to apply knowledge and skills through dictation and meaningful composition	– Allow content knowledge to outweigh spelling
	– Use a hands-on approach (e.g. letter tiles, plastic/magnetic letters) to practise building words using learned phonic patterns	– Provide a word bank or glossary of terms relevant to the topic
	– Use word sorting to help students understand the relationships of particular sound-letter correspondences	– Modify the number of spelling words to be mastered each week
	– Create spelling lists based on the phonics programme (rather than by subject or error analysis)	
	– Regularly review previously taught spelling patterns to promote retention	

Written expression	*Planning*	– Provide additional working time
	– Model and provide guidance in the use of graphic organisers, brainstorming techniques, a planning 'think sheet', semantic or mind maps and story planners	– Modify or reduce the amount of writing
	– Teach students how to use templates and scaffolds to construct written responses that are clear and detailed	– Reduce task demands by providing the structure for other aspects of work or scaffolding through each step
	– Teach the function of 'key words' and how they indicate which organisational pattern is required when writing (e.g. definition, analysis, compare/contrast)	– Provide alternative modes of assessment (e.g. project, oral presentation, multiple choice)
	Organisation of text structures	– Issue writing guides, templates and paragraph headings to support the structure of extended writing
	– Highlight key features of different text types (e.g. narrative, factual report)	
	– Explicitly teaching writing vocabulary, such as transition words (e.g. similarly, but, yet, nevertheless)	
	– Teach how to form simple, grammatically correct sentences, then gradually move to paragraph writing, then written composition	
	– Provide modelling, scaffolding and guided practice to develop skills in written construction	
	– Encourage use of sentences that vary in length and style	
	– Teach the functions of the parts of speech	
	– Talk through the process of sentence construction: *'Does it sound right?'*	
	Revising and editing	
	– Teach mnemonics for editing, such as:	
	•COPS (**C**ontent—does it make sense? **O**rganisation—are the sentences and paragraphs in the correct order? **P**unctuation and **S**pelling)	
	– Provide revising and editing checklists with questions to follow	
	– Encourage students to read aloud to locate errors	
	Self-regulation	
	– Have students develop personal writing goals	
	– Provide rubrics for students to assess their own writing performance	
	– Encourage peer revisions using rubrics	

become confident and competent writers, they require explicit instruction in strategies that are specific to the genre of text they are writing as well as strategies that are universal to the process of writing—planning, drafting, revising and self-regulating (Harris & Graham, 2013). There is a considerable base of research evidence that shows clear improvements in the writing competency (i.e. length, detail, organisation and overall quality) and planning skills of students with and without writing difficulties following explicit instruction using a strategic writing approach (e.g. Graham, McKeown, Kiuhara, & Harris, 2012; Hansen & Wills, 2014; McCurdy, Skinner, Watson, & Shriver, 2008; Rogers & Graham, 2008). These studies also show maintenance in gains over the long-term, as well as a positive impact on students' self-efficacy.

Planning. Planning involves determining purpose and audience, deciding which text type to use, establishing topics, researching information and organising ideas. However, it is a strategy that is frequently underutilised by students with writing difficulties (Troia & Graham, 2002). One evidence-based means of encouraging struggling writers to become 'more planful' is to explicitly teach strategies that can be used during or in advance of writing, such as those in Table 4. It is important that considerable instructional time is devoted to planning, far more than is often given to classroom writing activities or assignments, as well-developed plans result in far better first drafts.

Organisation of text structures. As recommended in the recent review of the Australian Curriculum, Assessment and Reporting Authority (Australian Government Department of Education, 2014), explicit instruction in different organisational structures should involve analysis of exemplary writing samples and literary texts for specific features of the text type, including content and structure, particularly during the early to middle years of primary school. Such analysis should receive greater emphasis than the creation of children's own literature and stories. Providing students with strategies for building well-formed sentences, paragraphs and texts, as listed in Table 4, will give them the skills necessary to tackle the demands of writing in upper primary and secondary years.

Mnemonics serve as a useful tool to assist students' recall of planning strategies and organisational structures. There are several evidence-based mnemonic strategies listed throughout the literature that have proved beneficial for students' writing skills. One example is **POW** (Pick your topic, Organise your thoughts, Write and say more) and **TREE** (Topic sentence, Reasons for support, Explain your reasons, End with a concluding statement), a two-part strategy to help students write opinion essays and include all parts of a paragraph.

Revising and editing. Revision involves clarifying, reorganising or altering the meaning or structure of a draft in some way, while editing includes proofing and correcting errors in grammar, punctuation, syntax and spelling. Teaching students how to make meaningful revisions, rather than focussing only on the mechanical aspects of writing, results in a higher quality of written work (Rogers & Graham, 2008). There are a number of evidence-based strategies designed to enhance students' revising and editing skills, such as those listed in Table 4.

Self-regulation. Programmes that include an additional focus on self-regulation are found to be most significant in improving the writing performance of students with writing difficulties (Graham & Harris, 2003, 2005). Self-regulation includes self-evaluation (self-monitoring and self-recording), goal setting, self-reinforcement and self-talk. Many students with writing difficulties are not particularly adept at self-regulation, and therefore instruction that specifically addresses this weakness is helpful (Troia & Graham, 2002).

The self-regulated strategy development model (SRSD) developed by Graham, Harris, and Troia (2000) provides one example of evidence-based strategy instruction that has been used successfully with both struggling and strong writers. Through SRSD students are explicitly taught to use the same type of strategies as more competent writers in order to enhance their strategic behaviours, self-regulation skills, content knowledge and motivation (e.g. the POW+TREE strategy used to help writers approach an essay writing task). Several meta-analyses and independent

studies have indicated that SRSD has had the strongest impact of any strategic instruction approach to writing, with meaningful improvements noted across students' use of genre elements, quality of writing, time spent planning, use of revision strategies and self-efficacy (e.g. Graham, Harris, & Mason, 2005; Tracy, Reid, & Graham, 2009).

Classroom Modifications and Accommodations

In order to lessen the impact of difficulties for students who struggle with writing, particularly students with underlying learning disabilities, it may be necessary to provide modifications and accommodations in the classroom, such as those outlined in Table 4. This encompasses adjustments in the curriculum, instructional components, environmental elements or requirements and expectations that allow students' equal opportunity to access the curriculum and achieve results in the least restrictive manner. The type and level of modification and accommodation needed by a student are likely to change over the course of their education.

The Role of Technology in Supporting Writing Difficulties

While high quality intervention goes a long way towards improving students' foundational writing skills, the use of assistive technology enables students to engage more effectively in the learning process, reduces the burden of their difficulties and allows them to demonstrate their skills and knowledge at a level more consistent with that of their peers (Lewis, 1998). There are several assistive technologies available for supporting and accommodating handwriting, spelling and written expression difficulties, which have been shown to improve the writing performance of students with learning difficulties and disabilities (Batorowicz, Missiuna, & Pollock, 2012). Table 5 offers a list of some of the assistive technologies available for use.

Table 5 Assistive technology options to support students with writing difficulties

Tool	Examples
Electronic spellcheckers	Collins Pocket Speller, Franklin Spelling Corrector
Word-processing software	Read and Write: TextHELP Gold, ClaroRead, WYNN Wizard & Reader, SOLO6, Co:Writer Solo, WordQ, Kurzweil 3000
Speech-recognition software	Dragon Naturally Speaking, IBM ViaVoice, Dragon for Mac, Pulse SmartPen (Livescribe records), iDictate, Speak-Write
Graphic organisers	Inspiration, Kidspiration, Webspiration, FreeMind, Draft Builder
Text-to-speech software	ClaroRead, Read Please plus 2003, Word Talk, DSpeech, Pen Friend XP, Read: OutLoud, eBook Readers (e.g. Cool-er, Kindle DX)
Apps	Dragon Dictation, TypoHD, Inspiration Maps, Sound Note, ClaroSpeak, Sentence Builder (Abitalk), rED Writing

As the goal of assistive technology is to enhance students' performance and lessen the impact of their disability, it is important to carefully match the assistive technology to the individual needs of students. This involves careful consideration and assessment of the individual's profile of academic strengths and difficulties and a clear understanding of the functional impact that their difficulties may be having on their academic performance. Some students will find it very beneficial to use assistive technology to support the early development of handwriting and spelling skills, while other students will find that their need for assistive technology does not emerge until later in their education. In order to maximise the effectiveness of assistive technology, students need sufficient training in the initial introduction of technology and supported practice to develop familiarity and ease in their use.

Case Study

Student: Sara Johns
Age: 10 years, 2 months

Year: 5
School: Happy Valley Primary School

Reason for Referral and Background Information

Sara was referred to the school psychologist by her classroom teacher due to persistent difficulties with writing. Sara's developmental history was unremarkable, and there were no concerns with her medical history or her hearing and vision. She began formal education at age 5 at the same school in which she is currently enrolled, and her attendance has been consistent. It was reported that Sara has experienced difficulties since Year 1 with school reports indicating her writing is poorly structured and contains many misspellings, despite receiving extra support in school through small group instruction and case conferencing. Sara's current class teacher was also interviewed about Sara's performance at school. Her teacher reported that Sara has great difficulty translating her thoughts into words and her writing 'makes no sense'; however, word her reading, decoding, comprehension and math were appropriate for her year level, and she displays no difficulties with attention. Sara was described by her teacher as a hard-working student eager to do well.

Classroom Observations

Observations of Sara's performance in class were conducted, and work samples were reviewed, with particular attention to how Sara approached writing tasks and her writing output. It was observed that Sara understood the task instructions, appeared able to form letters accurately and in an organised manner and used an appropriate pencil grip. However, she struggled with the spelling of the words she wanted to write; had difficulty producing well-structured, grammatically correct sentences; and her writing speed appeared slow and laborious. School-based data was further reviewed. On curriculum-based assessments, Sara's performance on writing probes (words spelled correctly and correct word sequences) fell in the 'at-risk' range and failed to indicate significant improvement despite the spelling and writing curriculum implemented by the teacher and additional school-based small group intervention.

Tests Administered

Wechsler Intelligence Scale for Children, Fifth Edition (WISC-V)

Wechsler Individual Achievement Test, Second Edition (WIAT-III)

Comprehensive Test of Phonological Processing, Second Edition (CTOPP-2)

Queensland University Inventory of Literacy—Nonsense Word Spelling subtest

Handwriting Speed Test

Summary of Test Results

Results indicated Sara's verbal comprehension (crystallised intelligence) and perceptual reasoning abilities (fluid reasoning and visual spatial) and long-term storage retrieval fell within the average range compared to her same-aged peers, while her working memory and processing speed fell below average. Assessment of her phonological processing skills found her phonological awareness and phonological memory skills to be intact, while her rapid naming ability was significantly weaker than expected for her age. Sara's performance on subtests of word reading, decoding and math fell within the average range. In contrast, she obtained below-average scores on measures of real and pseudo-word spelling, written expression and handwriting speed. Her spelling errors were similar to that observed in her writing samples and included the misspelling of both regular and irregular words and the omission or substitution of phonemes in the middle and end of words. Similarly, her written work was poorly structured, contained punctuation and grammatical errors, and contained limited detail. Overall, the findings from the psycho-educational assessment combined with Sara's educational history were consistent with the diagnostic criteria for a specific learning disorder with impairment in written expression, otherwise known as dysgraphia.

Educational Recommendations

Remediation	Accommodations
• Utilise a structured and systematic programme focussing on synthetic phonics. Consolidate Sara's knowledge of simple letter sounds and develop her knowledge of complex phonics, spelling rules and conventions	• Allow Sara extra time to complete work
• Frequent short practice is most effective; for example, 15 min daily is more effective than one session of 1–2 hours	• Structure instructions in a clear, concrete format by breaking them into small steps, with visual prompts and a hands-on demonstration
• Utilise multisensory teaching/learning practices as often as possible	• Allow Sara to complete a reduced or modified amount of work
• Provide remediation on how to write a simple sentence, a compound sentence, a paragraph, etc.	• Allow content knowledge to outweigh spelling
• Utilise writing frames and structured templates to assist Sara in formulating her response	• Allow Sara to use spellcheck on the word processor or a hand-held spellchecker
	• Provide a word bank
	• Reduce the amount of copying Sara is expected to do

Implications for School Psychology

School psychologists are a key resource for classroom teachers and often assume a consultative role, providing feedback on effective strategies that could be implemented within the classroom and remedial settings, as well as support services that are available. They are also involved in the identification and assessment of struggling students, often observing 'at-risk' students within the classroom environment and conducting intellectual and academic assessments. It is therefore crucial that they have an understanding of the assessment tools available for use; a strong knowledge of effective instructional strategies and classroom accommodations to support handwriting, spelling and written expression difficulties and develop familiarity with the programmes and technologies that are available for use and of greatest benefit in order to intervene and remediate accordingly and as early as possible. Through teacher and or parent consultation, this information can then act as a tool in the provision of specific, evidence-based recommendations to teachers and within psycho-educational reports, as well as aid the development and modification of individualised education plans for students with significant learning difficulties and specific learning disabilities.

Test Yourself Quiz

1. What are the cognitive abilities that research has linked to written expression?
2. How can technology be utilised to address writing problems?
3. What considerations should school psychologists make when selecting tests to evaluate a student with written expression problems?
4. At what level should consideration be given to the provision of individualised support for students?
5. What are the six key skill areas required for spelling instruction?

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Student Mental Health and Psychological Interventions in a School Setting

Vicki McKenzie, Hilary B. Vidair, Chelsea Eacott, and Danielle Sauro

Mental Health of School-Aged Young People

The World Health Organization (WHO, 2007) defines mental health as a "state of wellbeing in which the individual realises his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her own community" (p. 1). Mental ill health and mental illness on the other hand broadly refer to a wide range of difficulties from stress, worries and loneliness to the more severe conditions of clinical depression, psychosis and substance abuse (Glozier, 2002). These conditions can have a significant effect on development, education and future adjustment (McGorry, Purcell, Hickie, & Jorm, 2007). Mental health difficulties are frequently comorbid with other mental illnesses, which make them more complex to identify and treat (Wilmshurst, 2005).

Mental health has become a growing problem in recent decades, as concerning figures reveal increasing numbers of young people experience mental ill health (McGorry et al., 2007). Mental health and substance use disorders now contribute over 50 % of the burden of disease in the age group 15–25 years, and 75 % of mental health disorders emerge by the age of 25 years (AIHW, 2008). The transitory changes appearing in young people in their adolescence may be normative and represent uneventful adjustment issues; however, they may be accompanied by signs of potentially significant disturbance that can have major consequences for development and future adjustment (McGorry & Goldstone, 2011). Mental health disorders also frequently occur in younger children, with studies showing prevalence rates of 1 in 7 children from 4 to 17 years (Lawrence et al., 2015). Research shows that young people are reluctant to seek help (Rickwood, Deane, & Wilson, 2007), and an Australian study found that of those children and adolescents who had emotional and behavioural problems, only 17 had attended a health service in the previous 12 months (Lawrence et al., 2015). However, early intervention has been shown to be important in reducing the incidence of relapse or recurrence (Allen, Hetrick, Simmons, & Hickie, 2007).

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The School as a Front-Line Service Provider

The school is a fundamental site for the social and emotional development of young people, setting a framework for constructive adaptation in their future lives. For example, the Australian curriculum addresses the need for young people to develop personal and social capacities as well as their academic learning, and notes the important role that school engagement plays in student well-being (ACARA, 2013). As students spend many hours each day in school, its role in their lives is clearly profound. Next to the family, the school provides the resources for students to manage their experiences.

Given the prevalence figures quoted above, many students in schools will experience severe difficulties. Understanding and supporting students with these problems and illnesses are an important task. Incidence figures have encouraged Australian communities to consider ways to enhance well-being of young people and develop a prevention focus instead of focusing on the presence or absence of a condition (Donovan et al., 2003). The school can also be considered a universal and accessible agency for implementation of prevention and early intervention in mental health disorders. The Department of Education and Training in Victoria, Australia's web page on mental health, asserts the role of all education staff in promoting mental health and provides considerable support materials (http://www.education.vic.gov.au/Documents/school/teachers/health/healthymindsfly.pdf, DET, 2015b). It encourages schools to create safe, inclusive and empowering environments; teach social and emotional learning; build family, community and service partnerships; and promote activities that engender positive mental health (DET, 2015b).

In both the United States and Australia, schools have effectively implemented universal programmes for all students focused on mental health and academic outcomes, such as the School-Wide Positive Behavioral Interventions and Supports, the Good Behaviour Game and the 4Rs Program in the United States (Vidair, Sauro, Blocher, Scudellari, & Hoagwood, 2013), and in Australia, programmes such as Mindmatters, KidsMatter, Act-Belong-Commit, Positive Behaviour Support, Positive Psychology and the National Safe Schools Framework (Crockett, 2012). These programmes reflect the importance of the relationship between student well-being and educational outcomes (Durlak, Weissberg, Dymnicki, Taylor, & Schellinger, 2011).

Although some school-based mental health programmes have been successful, schools are intensely busy centres of activity delivering a broad range of programmes, developmental activities and supports for students. In the context of mental health, programmes provided in schools have been found to vary and often follow tradition, regardless of whether empirical support is available (Forman, Olin, Hoagwood, Crowe, & Saka, 2009). Even after a successful school-based mental health intervention study has been initially implemented, a school staff may have difficulty sustaining the programme (Forman et al., 2009). Unless the school has a structure that fosters the two elements of prevention and intervention, initiatives can fall away, and teachers can feel overwhelmed with yet another responsibility for which they are little prepared or trained. The support of the psychologist in these interventions can be most helpful in sustaining their maintenance.

The psychologist brings unique expertise to a school, as well as a breadth of knowledge and skills that overlap with other allied health professionals (Gilmore, Fletcher, & Hudson, 2013). Psychological training spans learning and development across the lifespan and addresses counselling, intervention and consultancy across a range of issues for individuals, groups and systems (Frydenberg & McKenzie, 2007). Psychologists working in schools are identified in different ways as a function of employment labels and professional training. Professional titles for psychologists working in schools in Australia can range from educational psychologist, guidance counsellor, developmental psychologist to school psychologist (Gilmore et al., 2013), and in the United States, the psychologist

working in a school can have a different degree and type of certification compared to other psychologists (Jimerson, Graydon, Curtis, & Saskal 2007). For the purposes of this chapter, the title school psychologist will be used to identify the professionals accredited in psychological practice who are working in schools.

The Connection Between Mental Health and Academic Outcomes

A valuable way for the school psychologist to foster and maintain school-based mental health programmes is to consider the school's top priorities. Because schools are principally focussed on educating children, they are typically evaluated based on their students' academic performance (e.g. standardised test scores; No Child Left Behind, Section 1116, http://www2.ed.gov/nclb/overview/intro/guide/index.html, My School website, http://www.myschool.edu.au). Given this focus, school-based mental health programmes that demonstrate a positive effect on academic outcomes are likely to be the programmes adopted and sustained. Student mental health has been shown to be associated with academic outcomes (Roeser, Eccles, & Freedman-Doan, 1999; Wagner et al., 2006). For example, children's anxiety can impair their test-taking performance, and child behaviour can disrupt classroom functioning. There is also evidence that mental health problems combined with dropping out of school can have substantial long-term negative consequences (Esch et al., 2014). In the meta-analysis of over 200 school programmes fostering social and emotional learning undertaken by Durlak et al. (2011), participants showed an average 11 % gain in academic achievement compared with control school students. If school psychologists aim to obtain support and approval from key school stakeholders (e.g. principals, superintendents, politicians, parents) to implement mental health programmes, it is important they demonstrate that these programmes have the capacity to foster improvements in students' academic performance.

Hoagwood et al. (2007) conducted a systematic review comparing studies of school-based mental health programmes that assessed academic and mental health outcomes with studies that only assessed mental health outcomes (i.e., emotional and behavioural disruption, mental health diagnoses and problems with functioning). Academic outcomes included grades, special education placement, attendance and suspension records. Of the studies that assessed both academic and mental health outcomes, 62.5 % showed significant improvements in both domains. The efficacious studies were time intensive and included the participation of multiple individuals (students, teachers, parents) across multiple domains (school, home). Undoubtedly these findings suggest that school psychologists are facing a complex endeavour; however the results demonstrate the positive impact that can be made on the student's mental health while addressing the academic priorities of the school.

Expanding on Hoagwood's review, Vidair et al. (2013) examined United States studies that assessed the effects of school-based mental health programmes from June 2006 to April 2012. Of the studies that assessed both academic and mental health outcomes, 69.6 % had significant improvements in both domains. The studies that demonstrated some significant outcomes were primarily universal (i.e., general programmes for all children), included children in primary school, focused on disruptive behavioural or social-emotional problems, were administered in class by teachers or school staff, lasted 1 year or longer and assessed outcomes via teacher reports. Both reviews demonstrate that effective programmes typically need to include teachers and be provided over a long period of time in order to impact both mental health and academic outcomes.

Vidair et al.'s (2013) review highlighted the growing number of studies focused on school-based mental health programmes that included an assessment of academic outcomes. Specifically, within a 6-year period there was approximately the same number of these studies as Hoagwood

et al. (2007) found in the prior 16-year period. These numbers indicate that the mean number of school-based mental health programme studies that assessed academic outcomes conducted per year has more than doubled. Ideally, this increase in programmes that focus on assessing both academic and mental health outcomes will move from the research arena into standard school practice. School psychologists are in a unique position to bridge the gap between research and practice by educating themselves about effective mental health programmes and appealing to school stakeholders' interest in implementing them by demonstrating their effects on students' academic performance.

The Multifaceted Role of the Psychologist in Schools

There is variation in the professional and service delivery activities undertaken by school psychologists in the Australian school systems, where the school psychologist may operate as a visiting specialist or an on-site integral member of staff (Bell & McKenzie, 2013). Professional bodies such as the Australian Psychological Society (APS) in Australia and the National Association of School Psychologists (NASP) in the United States direct best practice service delivery of school psychologists through the provision and development of practice guidelines. The Department of Education and W. A. (2010) developed a school competency framework that establishes agreed dimensions of effective school psychology practices. Key to this framework is the development of professional competency described in three phases: Phase 1 independent application of competencies, Phase 2 higher-level individual competencies and the capacity to instruct and mentor their colleagues and Phase 3 exemplary skills, with the capacity to influence the system and the school psychology profession (Department of Education & W. A., 2010). These levels indicate how school psychologists are ideally placed to be effectors of change and to influence policy at a leadership level. The West Australian government document demonstrates how school psychologists are increasingly being called upon to advise and consult with school management teams to advocate for the mental health and well-being of young people at all levels of identification and intervention. Many mental health programmes are initiated by schools and delivered by teachers (DET, 2015b), which reminds us of the need for the psychologist's distinctive role in the school to enhance and guide the delivery of such interventions.

There are a number of factors that may impact on the role and function of school psychologists (Fagan & Wise, 2007). These factors are demonstrated in the following diagram (Fig. 1), which provides an overview of some of the main clusters of variables determining the role and practice of the psychologist in a school. Individual factors are influenced by tertiary pathways and educational backgrounds, personal attributes and level of competency that impact on individual performance. Work and external factors are dependent on a number of variables but, namely, work setting, region and educational system. The financial resources of a setting as well as population dynamics (e.g., socio-economic status) can dramatically impact on the nature of the school psychologist prevention and intervention initiatives. Policy at the workplace, organisational and government levels also significantly influences the work of school psychologists and can often dictate practice.

Although there is likely to be significant variability between service delivery by school psychologists on an individual level, as a profession, the scope of activity is broad, with an increasing emphasis on fostering well-being and positive mental health (Bell & McKenzie, 2013). Impetus has grown for school psychology to shift from the more traditional role of 'test and assess' to also encompass expanded services such as consultation, intervention, prevention and in-servicing of staff (Pagan, 2002).

In the role of consultant, the psychologist in a school can hold a pivotal position to impact school policy and to impact on school practice through building constructive relationships

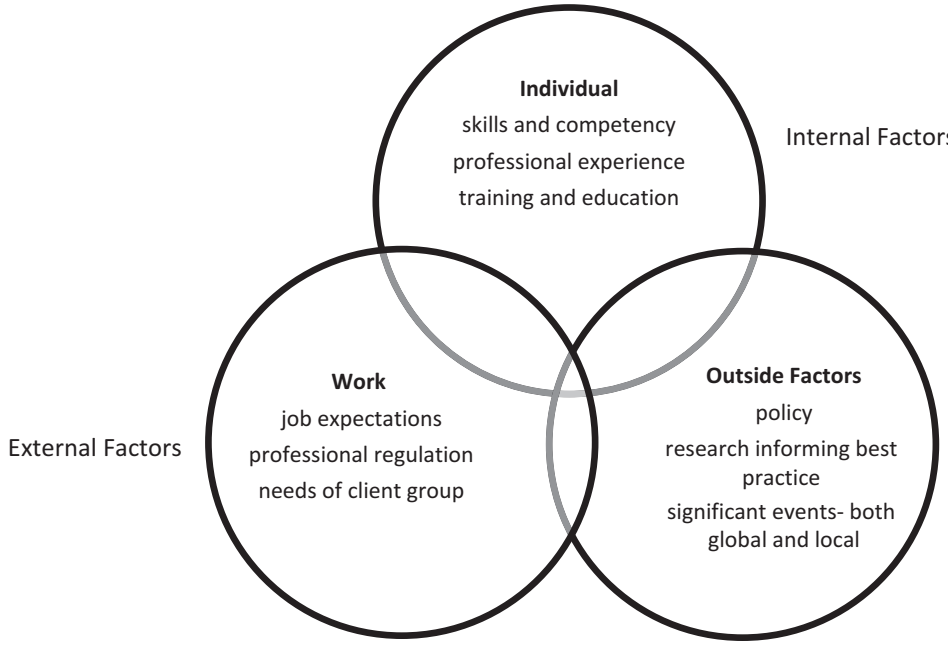

Fig. 1 Factors that influence the role of the school psychologist

across the school and its community (Shapiro, 2006). Drawing on knowledge of evidence-based practice, the psychologist can develop and support school initiatives to assist students with a broad approach alongside typical individual case model intervention. Combining this broader approach with core skills in interpersonal relationships, the school psychologist has the skills to use a networking model to build a connection with leadership groups in the school where school-wide policy and practice can address such issues as school connectedness and resilience (Dawson, 2000).

Hence the psychologist has a multifaceted role in schools. Direct service can be provided for students on a range of individual issues from difficulties in learning and socialisation to day-to-day upsets and stresses. In the United States, over 70 % of children receiving mental health services receive them in school (Burns et al., 1995). On a wider scale, the school psychologist might work with teachers to enable more effective learning and adjustment in individual students or contribute to greater numbers of students where appropriate in applying psychological knowledge to curriculum and school processes and procedures. More structurally, the psychologist might participate in school committees impacting on the wider school community (Hawkins, Barnett, Morrison, & Musti-Rao, 2010). In Australian schools this is often titled the well-being team consisting of a deputy principal, teachers or coordinators, school nurse, support staff, psychologist, social worker and perhaps a speech pathologist (Department of Education and Training, 2015a). In the United States, a similar team serves to facilitate the implementation of Individualized Education Programs (IEPs) provided for students eligible for special education services (US Department of Education). Parents are also considered prominent members of the team, as they are able to provide information about their child's learning style, ability to conduct academic work at home and strengths.

Some have argued that the traditional and persistent emphasis of school personnel on assessment of learning difficulties and disabilities, particularly given the volume of referrals made to

school psychologists, increasingly poses the risk that school psychologists remain caught in a primarily reactive medical model service aimed at assessment of individual deficits, with little time to attend to wider initiatives such as mental health intervention (Roffey, 2012). Although individual work with children's learning problems is a crucial and critical role, school psychologists have a necessary role in mental health and well-being in schools at an individual, early intervention and preventative/systemic level (Roffey, 2012).

Establishing a clear identity in the school is a prerequisite for the school psychologist to develop impact, as schools often are not fully informed of the role psychologists can take and operate according to a perception based on the medical model of their expected tasks (Bell & McKenzie, 2013). The consultative and collaborative role of the school psychologist needs to be established and allowed for the multisystemic partnerships between families, community agents, the individual and the school to effectively address the mental health needs of young people (Cole & Siegel, 2003; Shapiro, DuPaul, Barnabus, Benson, & Slay, 2010). In this regard the school psychologist is well placed to provide a 'triage' approach, providing an initial assessment of risk, engaging the young person in a therapeutic alliance, consulting with family and school personnel, providing mental health services when feasible, and where necessary facilitating referrals to external agencies for ongoing intervention and support. Consultation is the most effective way for school psychologists to reach large numbers of students, combining direct treatment with indirect work with relevant parties to improve the climate of schools and foster positive mental health outcomes at a universal level (Fagan & Wise, 2007).

The employment of the psychologist to a single school or as a visiting specialist to a number of schools significantly impacts the type of support that the psychologist will be able to provide. Proctor and Steadman (2003) found that psychologists based in a single school reported greater caseload diversity, stronger psychologist-teacher relationships, a higher level of integration into school activities and a greater understanding by school administrators of their skills than those who were placed across a group of schools. Bell and McKenzie (2013) found that psychologists dealing with a number of schools tended to be more involved in and loaded up with psychological assessment than their counterparts in independent schools where there was greater provision of counselling services to young people. Eckersley and Deppeler (2013) found that school principals in the government system in Victoria, Australia, tended to view systemic intervention as a secondary function of the school psychologist due to their limited awareness of the breadth of skill that psychologists possess. Bell and McKenzie (2013) encourage school psychologists to take an advocacy approach to this, encouraging a broader perspective in teachers, parents and principals by educating users of the numerous skills involved in the preparation of psychologists.

Tiers of School-Based Mental Health Programmes

Reference has been made to three tiers of psychological intervention—direct treatment with individual students, early intervention for select students at risk and broad-based, universal/preventative programmes (Shapiro et al., 2010). Examples of the focus of each tier of intervention can be found in Fig. 2.

The first tier, direct treatment, refers to situations where specific students are in need, and the school psychologist is likely to conduct an individual assessment and intervention (for instance, individual therapy, group programme in the school and/or parent training). Students' personal problems, such as bullying, friendship issues, work pressures and personal issues, which could develop into more severe mental health issues, can be treated by the school psychologist in the school, without recourse to a more clinical setting. Studies have found positive outcomes of interventions for depression and anxiety, using a CBT approach, interpersonal psychotherapy (IPT) or psychoeducation (Hofmann, Asnaani, Vonk, Sawyer, & Fang, 2012; Neil & Christensen, 2007). The standards of practice for supporting

Fig. 2 Focus of intervention

Client	*School psychologist activity/intervention*
Individual student Individual student with specific difficulty	Treatment or referral to relevant professional service
Selected students 1. Selected group focussed on specific problem 2. Selected group targeted as at risk of developing mental health problems (such as school refusers).	Group treatment E.g., group to improve social behaviour Psychologist runs group or works indirectly by training teacher or parents.
Whole school School climate or policy and practice (Universal preventative program) E.g., Mental health awareness, restorative justice program	Work with leadership of school Implement classroom-wide intervention Participate in teacher development Parent programs Community liaison

children in schools recommend a ratio of 1 psychologist to 500 students (APS, 2009); however, this is rare and in some systems has led to training teachers, school nurses and well-being personnel as additional front-line supports for students. When such students require more intensive treatment outside of what can be provided in a school setting, the psychologist may find it appropriate to refer them for clinical psychological services outside the school.

The second tier refers to identifying students in need because they have or are at risk of developing a mental health problem. When a group of students is selected, the school psychologist can implement a group intervention (e.g. social skills classes, anxiety/depression groups, externalising behaviour groups) or train school personnel to manage specific problem behaviours (Wilson & Lipsey, 2007). For example, the Penn Resiliency Program for Children and Adolescents targets children with high levels of depression and/or anxiety and is designed to teach cognitive-behavioural and problem-solving skills (Gillham et al., 2006). There is also a parent intervention component. Gillham et al. evaluated this programme among middle school students with high levels of depression and/or anxiety and found that the intervention group had significantly lower levels of depression and anxiety at 6 months and 1 year follow-ups when compared to the control group. In addition, Kasari, Rotheram Fuller, Locke and Gulsrud (2012) evaluated two versions of a social skills intervention for elementary school children with autism spectrum disorders: an intervention involving direct instruction to the child and a peer-mediated intervention. Results indicated that children who attended both groups or peer intervention only had significant improvements on a variety of social skills as compared to a child intervention only or a control group. Compared with studies of individual treatment modalities in schools, systematic evaluation of interventions has been more frequently applied to group, early intervention and preventative programmes, such as the FRIENDS programme (Neil & Christensen, 2007). The Cochrane Depression, Anxiety and Neurosis Group (Merry et al., 2011), in a review of interventions, found that both targeted and universal depression prevention programmes may prevent the onset of depressive disorders compared with no intervention. This review also commented on the heterogeneity of the studies, with reference to the need for sound methodology.

The third tier focuses on universal, preventative programmes that are implemented to all students as a classroom or school-wide programme intended to enhance the capacity of individuals to cope with resilience in general and when difficulties arise. These programmes are constructed on research outcomes that demonstrate there are clear protective factors that promote well-being and academic achievement while identifying risk factors that are associated with negative outcomes (Kids Matter, 2013-4). Key protective factors lie in positive relationships at school and home and using a strengths-based model. According to Patton et al. (2000), schools have increasingly acknowledged and supported their obligation to provide a safe environment in which young people can learn and apply the skills and understanding that contribute to mental health and well-being. School psychologists can promote this knowledge and assist teachers in creating behaviour plans or positive reinforcement systems that can be implemented in the classroom setting or as part of the classroom curricula to promote positive behaviour and attitudes. For school-wide mental health interventions, school psychologists can advise on reform of policy of the school, enabling positive relationships and engagement of students, through assisting in the creation of new school rules, expectations and school-wide positive reinforcement systems and plans for dealing constructively with student relationships.

Efficacious universal programmes in the United States typically focus on the prevention and reduction of problem behaviours and social-emotional well-being (Vidair et al., 2013). For example, the Good Behaviour Game (GBG), a classroom behaviour management programme, focuses on team behaviour-contingent reinforcement (Kellam et al., 2008; Wilcox et al., 2008). It was implemented in 41 elementary school classrooms, and over 900 children were followed until the ages of 19–21. Results found that children who had participated in the GBG had significantly lower rates of substance use and suicidal ideation and attempts in comparison to controls. Head Start REDI (Research-Based, Developmentally Informed) is a classroom programme that focuses on social-emotional, self-control and problem-solving skills as well as language and literacy (Bierman et al., 2008). Implemented in 44 Head Start classrooms, results showed significant improvements for the intervention group in emotion recognition, social problem-solving skills and aggression in comparison to controls. Both programmes were administered in the school setting with the involvement of school staff.

Similar universal programmes can be found in the Australian school system. For example, KidsMatter is an Australian national primary school mental health promotion, prevention and early intervention initiative. Slee et al. (2009) evaluated KidsMatter based on data from implementation in 100 schools. KidsMatter uses a whole-school approach that provides schools with a framework, implementation process and key resources to develop and implement evidence-based mental health promotion, prevention and early intervention strategies. Changes in mental health were assessed using parent and teacher reports on the Strengths and Difficulties Questionnaire (SDQ; Goodman, 2005). A significant overall reduction in mental health difficulties was identified on average across all students. Gains were made in emotional symptoms, conduct problems, peer problems and hyperactivity. Furthermore, the students gained in mental health strengths during the programme. The KidsMatter programme is an example of operating on the three tiers: universal/prevention by improving the mental health and well-being of students, selective early intervention by achieving greater support for students at risk or experiencing mental health problems and intervention by reducing the incidence of mental health problems.

Slee et al. (2009) report that the outcomes of the Australian KidsMatter evaluation are consistent with emerging literature that has identified universal ‘whole-school’ approaches as protective for student well-being. KidsMatter promotes a positive shift in mental health for the whole school population and enhanced academic and social competencies through more positive interactions between members of the broader school community (students, parents, teacher, community groups). Importantly, across the

2-year KidsMatter trial, there were increases in the teachers' ratings of their knowledge, competence and confidence with respect to teaching students about social and emotional competencies. The evaluation demonstrated a number of gains for the participating children and built confidence in staff and positive connections between schools and parents. There are numerous other programmes gaining popularity in Australian schools which have been evaluated, such as coping skills training and the Resourceful Adolescent Program, which have shown improvements in depression scores (Frydenberg, Care, Chan, & Freeman, 2009, Shochet & Hoge, 2009), and the positive psychology programmes introduced in a growing number of schools (Waters, 2011).

There is consistent evidence that prevention programmes which are carefully designed and implemented can be effective in preventing many of the problems facing children and adolescents (Nation et al., 2003). Characteristics of successful programmes include comprehensiveness (multicomponent interventions), sufficient dosage (enough of an intervention to produce the desired effect plus follow-ups), timing (initiated early enough to have an impact on the development of the problem) and a skill development focus. Programmes that engage children in their environmental context are also most likely to produce change (Nation et al., 2003).

Teachers and psychologists on-site in the schools can have a powerful role in assisting students gain the professional help that is needed (Mazzer & Rickwood, 2013). However due to the limited availability of psychologists compared with referrals, the direct treatment tier needs can dominate demand and thereby inadvertently restrict the range of consultative and preventative services (Farrell, 2010). This challenges school psychologists, and the universities that train them, to establish strong skills in consultancy and systems thinking, to enable the psychologists to fully inform school communities of the broad base of skills they are able to contribute and to educate their community about their capacity to contribute to well-being and mental health intervention (Frydenberg & McKenzie, 2007).

In the United States, both universal and selective school-based mental health programmes have been found to be effective. Universal programmes are administered to all children in a classroom or school-wide setting, and selective programmes target a specific group of at-risk students (e.g. aggressive behaviour, depressive symptoms). Among the programmes in Vidair et al.'s review (2013), differences were found to exist between effective universal and selective programmes (Sauro, Vidair, Blocher, Scudellari, & Hoagwood, 2014). For example, teachers and school staff most often implemented universal programmes, whereas outside researchers or professionals were more likely to implement selective programmes that targeted a specific need. It may be likely that outside researchers alone implemented selective interventions because they are typically highly trained to focus on the alleviation of specific, already present, mental health symptoms. However, the reliance on outside researchers to execute mental health programmes in the school may reduce the feasibility of sustaining the programmes over time. In fact, the universal programmes tended to last longer, possibly because teachers and other school personnel engaged in the integration of the programmes into the classroom curricula. It is recommended that school psychologists help build a bridge between outside researchers and school personnel, where researchers can train school staff to implement evidence-based protocols with fidelity while at the same time learning from school staff about how to best adapt programme components to fit the needs of a particular school climate.

How to Facilitate the Implementation of School-Based Mental Health Programmes

With the mental health struggles facing youth in our schools, the good news is that a variety of effective school-based mental health programmes exist (Hoagwood et al., 2007; Vidair et al., 2013). The next step is to determine how to integrate

these programmes into the typical school setting. Forman et al. (2009) interviewed developers of evidence-based school mental health programmes to determine which factors can facilitate their implementation. The developers focused on several facilitators, including the need to gain support from school administrators, financial assistance to foster programme sustainability, high-level training and consultation to obtain fidelity to programme protocols, alignment with school mission, goals and policies and active involvement from parents and students. Rones and Hoagwood (2000) also recommended the use of multiple modalities (e.g. school and family components), the integration of the protocol into the classroom and the use of developmentally appropriate information.

As part of the systematic review by Vidair et al. (2013), 43 recent studies of school-based mental health programmes were examined to determine the types of implementation facilitators reportedly included. Results indicated that almost half of studies integrated programme material into the classroom. In two-thirds of all studies, specific training as well as supervision or support was provided for the programme staff. Over half of all studies reported some measure of programme fidelity, such as protocol adherence or quality of programme implementation. This demonstrated an increase in the importance placed on ensuring a programme is provided as intended, as only 9 % of studies had reported measuring fidelity at the time of Hoagwood et al.'s (2007) review. In studies of programmes that involved parents, the majority reported activities that appeared designed to engage or retain them (e.g. provision of child care, flexible programme hours). Of note, none of the studies discussed the use of specific facilitators related to programme sustainability. Only 5 % provided the school with some funding, the lack of which could hinder the possibility of a programme being sustained in the school over time. It is possible that more facilitators were included than were reported in these studies.

Based on the above findings regarding implementation facilitators, the following steps are recommended for school psychologists aiming to implement effective school-based mental health programmes in their settings:

- Focus on finding programmes that can be integrated into the school curriculum.
- Advocate for the implementation of mental health programmes to school administrators, explaining how addressing mental health issues can positively affect academic outcomes.
- Contact researchers to express interest in potential collaboration on a project with the school. School psychologists are in the best position to help researchers understand the school's missions, goals and policies and to help school administrators understand the value of systematically implementing school-based mental health programmes.
- Once collaboration with researchers is developed, advocate the importance of building funding options to ensure that the school has the capacity to both implement the programme and sustain it over time.
- Take time to inform parents and teachers about the value of the programme and ways they can become actively involved. Encourage the use of teachers to implement the programme. Help find time during the school day to train them.
- If parents are able to be involved, determine ways to engage them, such as offering flexible programme hours, childcare and compensation.
- Assess parent/teacher/student satisfaction with the programme and make changes based on their input.
- Play an active role in assessing fidelity to the programme throughout to ensure that it is being implemented the way it is intended.
- Document factors that appear to facilitate the programme's adoption and sustainability.
- Develop an evaluation process and consider input from the numerous stakeholders impacted by the programme.

Universal programmes do not exclude the need to make supports available to particular students in need of intensive treatment via direct intervention. In such cases, a school psychologist can still turn to evidence-based treatments to

determine the most effective intervention, using a combination of efficacious programmes found in the literature, clinical judgement and expertise and client characteristics, culture and preferences (APA, 2005). To do this, the school psychologist will be informed by evidence-based programmes focused on the primary problem the student appears to be experiencing, select the most appropriate intervention, determine any modifications needed for the school setting and consult with the child and parent about various options (e.g. therapy in school, therapy referral, medication referral). Evidence-based interventions for individuals can be used in school settings, and subsequent chapters will review clinical interventions that have been assessed in schools.

Preparing School Psychology Trainees for Changing Demands in Practice

There is continual pressure for professional development and training programmes to keep up with the expanding knowledge base necessary for effective psychology practice in schools. This training is expected to embrace new professional standards, broadening of assessment to include curriculum based assessment, twenty-first century skills, school reform, evidence-based practice and developing psychologists as agents of social justice (Dawson, 2000; Moi et al., 2014; Shapiro, Angello, & Eckert, 2004). It is important to prepare school psychologists to intervene in mental health disorders. The skills enabling psychologists to understand and effectively straddle the three tiers of intervention to deal with these disorders and their prevention, to help schools solve problems by collaborating and building effective teams and to promote the specific contribution that psychologists bring to schools as they link their mental health knowledge with the understanding they have of effectively working in educational institutions and practice are challenging for the field of school psychology and have the potential to bring some new demands for relevant professional development.

Case Studies

The following case studies demonstrate the content of this chapter in application to experiences in schools.

Case 1: Individual Intervention

Presenting Concern

Jesse is referred to the school psychologist by the year level coordinator responsible for student well-being issues. Jesse is new to the school and has a history of school refusal. The school psychologist meets with the family and then conducts an initial assessment with the student and identifies high levels of generalised and social anxiety. Jesse identifies making friends as the main goal.

Intervention

- Within the school setting, the school psychologist involves the student in a cognitive-behavioural social skills group and connects Jesse with other like-minded students.
- To support Jesse in the classroom, the school psychologist (along with the student and key staff) develops an individualised support plan outlining learning goals and strategies.
- Concerned about continuing difficulties, the school psychologist refers Jesse to an external psychologist for assessment. The student is diagnosed with clinical depression and anxiety and begins a treatment programme.
- The school psychologist consults with the external psychologist to provide collaborative support for the student.
- The school psychologist continues to monitor and consult with the family and the external psychologist as required.

Case 2: Whole-School Intervention

Presenting Concern

The school psychologist provides psychological services to a network of schools. One of these schools is concerned about the prevalence of self-harm in their school and is creating a school policy in responding effectively to this issue. They invite the school psychologist to provide specialist consultation.

Intervention

- Drawing on knowledge of best practice, adolescent development and research, the school

psychologist develops a draft policy and collaborates with key stakeholders in the school, e.g. leadership and student support staff.
- Teachers are identified as requiring training in how to respond appropriately to student disclosures of self-harm and the correct mental health referral procedure should they identify a student engaging in self-harm.
- The school psychologist develops and delivers a professional development training session for teachers in the school.

Case 3: Targeted Group Intervention

Presenting concern: The school psychologist has had several teachers reporting aggressive behaviour in their classrooms and at recess.

Intervention:
- The school psychologist decides that Coping Power (CP), a programme for children exhibiting aggressive behaviours (Lochman et al. 2009), would be feasible to implement. CP focuses on addressing social-cognitive deficits such as emotional awareness and anger management through group sessions, monthly individual sessions and parent groups.
- The school psychologist gains approval from the principal and teachers for the programme by explaining the improvements expected from the programme.
- The school psychologist has the teachers rate the students' aggressive behaviour on a standardised questionnaire to identify students with at-risk and clinically significant levels of aggressive behaviour. These are the students that will be invited to participate in the programme.
- The students (with parental permission) are invited to participate.
- The programme is implemented by the school psychologist.
- At the end of the programme, the school psychologist has the teachers rate the students' aggressive behaviour on the same standardised questionnaire to assess if the students' aggressive behaviours have decreased.

Conclusions

This chapter has considered the contextual role of the school psychologist and demonstrated how intervention may be important and relevant at an individual, selective and universal level. The following chapters will explore evidence-based treatments as applied to specific mental health problems to support positive student mental health and well-being outcomes.

Test Yourself Quiz

1. It is estimated that 75 % of mental health disorders emerge before the age of 25. Why is mental health prevention and intervention important for school psychologists to address in school settings?
2. School psychologists perform a multifaceted role. Name several roles that school psychologists can play and factors that you think would affect their role (consider in terms of your own region or workplace or in general).
3. Name the three tiers of school-based intervention and describe.
4. What tier of school-based intervention is being implemented in each of the case studies? What factors do you think could facilitate their implementation in your school?
5. Refer to the case study regarding Jesse. List intervention opportunities for this student at the individual, selective and universal level.

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Evidence-Based Assessment and Intervention for Anxiety in School Psychology

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Evidence-Based Assessment and Intervention for Anxiety in School Psychology

Internationally, anxiety disorders affect approximately 10–20 % of youth and are one of the most common mental health problems that children and adolescents experience (Beesdo, Knappe, & Pine, 2009; Costello, Mustillo, Erkanli, Keeler, & Angold, 2003). Examinations of prevalence rates among Australian children and adolescents have reported similar prevalence rates to those reported internationally, especially among Western nations (i.e., Western Europe, United Kingdom, United States, and Canada; Boyd, Kostanski, Gullone, Ollendick, & Shek, 2000; Emerson, 2003; Lawrence et al., 2015; Reavley, Cvetkovski, Jorm, & Lubman, 2010). Anxiety is an innate reaction to a real (or perceived) threat that activates the fear circuitry in the brain, or the flight or fight response. Associated with this reaction, when it is extreme or unwarranted, are physiological symptoms, including heart racing, shortness of breath, headaches, and stomachaches (APA, 2013). Although everyone experiences anxiety, children and young people with anxiety disorders experience excessive and pervasive and typically unfounded fear, worry, and/or nervousness that can have a negative impact on their lives, including academically, socially, and at home. Untreated, children and young people with anxiety disorders are more likely to have anxiety, depression, substance use, and suicidal behaviours later in life as well as experience educational underachievement (Beesdo et al., 2009; Benjamin, Harrison, Settipani, Brodman, & Kendall, 2013; Costello et al., 2003).

Nearly half of all youth with a psychological diagnosis receive services at school, highlighting the importance of mental health treatment in academic settings (Green et al., 2013). School-based services are more accessible, capable of circumventing common treatment barriers such as difficulties with transportation and scheduling (Flaherty, Weist, & Warner, 1996). In addition, school is a common setting for youth to display anxiety (McLoone, Hudson, & Rapee, 2006). Teachers, counsellors, and other school personnel

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are uniquely situated to evaluate the emergence of a youth's anxiety in the context of both their typical behaviour and the broader range of normative behaviour (Wei et al., 2014). Thus schools may represent an ideal setting for the assessment and treatment of anxiety in youth.

When deliberating whether or not the anxiety experienced by a child is a disorder, there are several relevant considerations. First, the anxiety must interfere in the daily functioning of the child and/or cause meaningful distress for the child. This includes having a negative impact on their friendships, academic performance, family functioning, or avoidance of anxiety-provoking stimuli. Children with anxiety disorders may not be immediately apparent to school staff as these children often suffer internally rather than showing symptomatic displays of behavioural outbursts (McLoone et al., 2006). Typical behaviours of an anxious child in the classroom may include extreme shyness, reluctance to participate in social situations, avoidance of schoolwork due to fears of making a mistake, worry about hurting others' feelings, perfectionistic behaviours, frequently going to the nurse or phoning home, catastrophising situations, worrying about failure, lacking self-confidence, and frequently seeking reassurance (McLoone et al., 2006).

Second, it is also important to determine whether the anxiety the child is experiencing is developmentally appropriate. DSM-5 (APA, 2013) and ICD-10 (WHO, 1992) both consider anxiety that occurs within normally occurring environmental stressors as appropriate. For example, children in kindergarten (aged 5) may get distressed by the thought of monsters or ghosts if left alone at home at night, and this would not be considered developmentally inappropriate (Beesdo et al., 2009). However, if the anxiety or worry persists over many months, or is excessive in the context of relevant situational and cultural factors, an anxiety disorder may be considered. Following is a brief discussion of the most common anxiety disorders experienced by children and young people, including separation anxiety disorder, social anxiety disorder, generalised anxiety disorder, and specific phobia (APA, 2013; Beesdo et al., 2009; Rapee, Schniering, & Hudson, 2009).

Separation anxiety disorder (SAD) is characterised as developmentally inappropriate and excessive anxiety when the youth is separating from their parents or other caregivers or attachment figures (APA, 2013). As it is developmentally appropriate for very young children to be closely attached to their parents, SAD is not diagnosed until a child is at least aged 6. DSM-5 and ICD-10 both recognise the criteria for SAD to include difficulty separating from their parents, worry about harm to themselves or their parents when they are apart, reluctance to sleep alone or be left alone, nightmares about separation, and refusal to go to school or other activities. Additionally, youth with SAD may experience headaches or stomachaches when separation occurs or is anticipated (APA, 2013; WHO, 1992). SAD is more common in children younger than 12 years (Costello et al., 2003), affecting between 1 and 8 % of youth (e.g. Beesdo et al., 2009; Rapee et al., 2009). Overall, SAD appears to be more common in females than in males in community samples, but rates are approximately equal in clinic samples (APA, 2013). SAD may present itself in school after separation from parents through crying, report of stomachaches or headaches, or frequent requests to call a parent throughout the day (McLoone et al., 2006). Although not exclusive to SAD, some children with SAD demonstrate school refusal, including late arrival to school, leaving school early, or missing school altogether (McLoone et al., 2006).

Social anxiety disorder is characterised by excessive fear and worry about negative evaluation from others in social situations. Both DSM-5 and ICD-10 define social anxiety disorder as a fear of being embarrassed in front of or rejected by peers. The feared social situation(s) almost always evokes anxiety that is out of proportion to the threat posed. These situations may then be avoided or endured with distress, and this anxiety must be present for at least 6 months (APA, 2013; WHO, 1992). DSM-5 also notes that for children, the anxiety must be present in interactions with peers and not just with adults (APA, 2013). Several common symptoms of social anxiety are a reluctance or avoidance of speaking in class, working or playing with a group, eating in front of others, and using public restrooms. Social anxiety affects approximately 1–7 % of youth aged 5–17

(Beesdo et al., 2009; Rapee et al., 2009) and is more common in adolescence than in childhood (McLoone et al., 2006). Additionally, the rates of social anxiety are about equal between males and females, with increasing rates for females but not males as adolescence approaches (Costello et al., 2003). In school, children with social anxiety are generally quiet and well mannered, and will frequently avoid interacting with their classmates, speaking in front of the class, or speaking with authority figures (McLoone et al., 2006).

Generalised anxiety disorder (GAD) involves excessive and persistent worry about a variety of topics. Typical worries in youth include concerns about performances, being perfect, being on time, harm befalling self and others, world or community events, and worry about the future. DSM-5 and ICD-10 require worry to be present nearly every day for 6 months, are difficult to control, and associated with at least one somatic or behavioural symptom (APA, 2013; WHO, 1992). These somatic and behavioural symptoms may include irritability, difficulty concentrating, reassurance seeking, restlessness, and difficulty sleeping. GAD occurs equally among males and females in childhood, but the occurrence in males decreases as adolescence approaches. Overall, GAD is relatively rare in children under 18 years with only about 1–3% of youth meeting diagnostic criteria (APA, 2013; Rapee et al., 2009); however, as youth reach adolescence, it becomes more common (Costello et al., 2003). In the school setting, youth with GAD are typically well behaved and may display perfectionistic behaviours related to their classwork and performance, seek reassurance from peers and teachers, and may not participate in new or unfamiliar situations (McLoone et al., 2006).

Specific phobias are evident when a child experiences marked fear upon encountering a specific object or situation. Common classes of specific phobias among youth are those of blood-injection-injury type, the natural environment, animals/insects, or situational. According to DSM-5 and ICD-10, the phobic stimulus is almost always associated with extreme fear, leads to avoidance of the anxiety-provoking stimuli, or is endured with intense distress. The fear should be disproportionate to the threat actually posed by the object or situation and be present for 6 months or more (APA, 2013; WHO, 1992). Children's distress may be observed as crying, freezing, or clinging to safety figures. Specific phobias usually have an onset in childhood, with 1–5% of children (e.g. APA, 2013; Rapee et al., 2009) and 2–16% of adolescents meeting criteria (APA, 2013; Beesdo et al., 2009; Rapee et al., 2009). Like the other anxiety disorders, specific phobias are more prevalent in females than in males. Specific phobias are commonly overlooked in school settings unless the child encounters the phobic stimulus in the classroom (McLoone et al., 2006).

Panic disorder is characterised by recurrent and unexpected panics attacks, which are described as a sudden and intense experience of physical symptoms associated with fear. The symptoms peak within several minutes of onset and may include racing heart rate, sweating, trembling, shortness of breath, feelings of choking or chest discomfort, nausea, dizziness, chills or hot flashes, numbness or tingling, feelings of derealisation or depersonalisation, fear of losing control, going crazy, or dying. Additionally, the attacks are followed by worry that another attack will occur or behavioural changes to avoid having another one (APA, 2013). Panic disorder may occur with or without the presence of agoraphobia which is described as fear of using public transportation, being in either open or enclosed spaces, standing in line or being in a crowd, or being alone outside of the home. These situations are avoided because the individual worries they will not be able to escape or get help if a panic attack is experienced (APA, 2013). Both panic disorder and agoraphobia peak in late adolescence and early adulthood, occurring in 2–4% of adolescents while they occur in less than .4% of children under the age of 14 years (APA, 2013; Beesdo et al., 2009). These disorders affect more females than males overall (Beesdo et al., 2009).

Assessment of Youth Anxiety Disorders in School Settings

One tool commonly used to assess anxiety in youth is the Anxiety Disorders Interview Schedule (ADIS-IV-C/P; Silverman & Albano, 1996). The ADIS is a semi-structured clinician-administered interview designed to assess the

presence of anxiety disorders based on the DSM criteria. Both youth and parent report are collected in separate interviews. The ADIS has demonstrated excellent psychometric properties, including inter-rater reliability, retest reliability, and concurrent validity (Lyneham, Abbott, & Rapee, 2007; Wood, Piacentini, Bergman, McCracken, & Barrios, 2002), and the parents version administered over the phone interview demonstrated high validity in Australia (Lyneham & Rapee, 2005).

The ADIS is the most prominent method of assessment for the diagnosis of childhood anxiety disorders in research settings (Silverman & Ollendick, 2005). However it requires trained evaluators and a significant time commitment, which may not be feasible in school and community settings (Wei, Hoff, et al., 2014). Instead, self-report measures are frequently used as they are easy to administer with minimal training and save time for both providers and families. Self-report measures are also an easy way to obtain the perspective of multiple informants, which is recommended when assessing anxious youth (Comer & Kendall, 2004).

One common self-report measure for the assessment of anxiety in youth aged 8–16 is the Multidimensional Anxiety Scale for Children (MASC; March, Parker, Sullivan, Stallings, & Conners, 1997). The MASC is a 39-item questionnaire that offers child and parent report versions of anxiety symptoms. The MASC assesses emotional, cognitive, physical, and behavioural symptoms of anxiety and has demonstrated high test-retest reliability, favourable divergent and convergent validity, and good internal reliability within the subscales (Dierker et al., 2001; March et al., 1997). The MASC has been shown to discriminant between youth with and without anxiety disorders in clinical settings (Dierker et al., 2001; Villabø, Gere, Torgersen, March, & Kendall 2012), and the measure's ability to accurately identify youth with anxiety is increased when both parent and youth scales are used (Wei et al., 2014) The MASC has also good psychometric properties in Australian community settings (Baldwin & Dadds, 2007). A recent revision of the MASC, the MASC 2, has been normed in a clinical sample of more than 800 children, though further research is needed on this revision in both clinical and school settings (March, 2013).

Another self-report measure is the Spence Children's Anxiety Scale (SCAS; Spence, 1997). The SCAS is a 38-item child self-report measure that assesses each DSM anxiety disorder. It has demonstrated excellent psychometric properties, including high internal consistency, satisfactory test-retest reliability, and convergent validity with other child self-report measures (Spence, 1998). The SCAS accurately differentiates children with anxiety from those with other disorders and is sensitive to symptom changes following treatment (Spence, 1998; Barrett et al., 2006). A caregiver's perspective can be obtained with the Spence Children's Anxiety Scale-Parent version, a parallel measure with similar psychometric properties (Nauta et al., 2004). The SCAS has been developed with an Australian population, and normative values for Australian girls and boys are available from www.scaswebsite.com.

Though self-report measures are not designed to be used independently for diagnostic purposes, they can be helpful in school settings to identify children and young people that may be at risk of developing an anxiety disorder (McLoone et al., 2006). In the school setting, parent and child report measures can be complemented by a teacher report measure of anxiety symptoms in children aged 5–12 years. The School Anxiety Scale (Lyneham, Street, Abbott, & Rapee, 2008) assesses social and generalised anxiety symptoms observed by teachers in the classroom and playground. This instrument and scoring can be downloaded from the Centre for Emotional Health at Macquarie University (www.mq.edu.au/CEH).

Broader measures such as the Child Behaviour Checklist (CBCL; Achenbach, 1991) and the Behaviour Assessment System for Children-2 (BASC-2; Reynolds & Kamphaus, 2004) may also be of use in identifying anxious students in need of assistance. These measures assess a wider variety of problems, including depressive, inattentive, and behavioural symptoms, though further research is needed to explore their use in school settings to identify anxious youth.

Factors Impacting Referral, Assessment, and Diagnostic Practices

School-based anxiety intervention programmes facilitate unparalleled access to students in need of mental health care. Nonetheless, a variety of pragmatic and conceptual factors impact the identification and delivery of school-based interventions for anxiety. First, schools vary in the degree to which mental health, and more specifically anxiety, is a priority within the school. This context may have an impact on the enthusiasm, flexibility, and cooperation of school staff. Providing comprehensive evidence-based assessment and treatment for all children experiencing clinical levels of anxiety is both costly and time-consuming. The American School Counsellor Association (ASCA, 2014) recommends 1 counsellor per 250 students, and the Australian Psychological Society (APS, 2011) recommends 1:500, yet in NSW, for example, there is only 1 school counsellor per 1030 students in government schools (NSWGEC, 2014). As one in four children will have experienced a mental disorder before they reach adulthood, this places a massive demand on school personnel.

Second, it can be difficult to identify anxious youth. As fear is a common emotion experienced by everyone at times, it is sometimes challenging to distinguish between developmentally appropriate fear and abnormal or excessive fear and anxiety. Further, due to its internalised nature, identifying anxiety disorders can be problematic. For instance, an anxious student may be perceived as well-behaved and hard-working, and parents and teachers may overlook the magnitude and impact of anxiety in the student's life (McLoone et al., 2006; Pearcy, Clopton, & Pope, 1993). Although teachers may be more likely to identify students' disruptive behaviour (Campbell, 2003b), there is also evidence that school personnel can in fact accurately report anxious and depressed symptoms in primary school (Campbell, 2003a), and high school students (Campbell, 2004) if required. However, identification is made easier when anxious symptoms are observable (Comer & Kendall, 2004) or affect the student's schoolwork, such as when anxious thoughts impact a child's ability to focus (Rapee & Heimberg, 1997), or when perfectionist worries impact a child's ability to finish schoolwork.

Third, in indicated interventions, in which students are selected or nominated for an intervention, it has been suggested that some students may experience stigma or teasing (Offord, Kraemer, Kazdin, Jensen, & Harrington, 1998). Lastly, anxiety disorders are frequently comorbid with other anxiety disorders, depression (Kendall et al., 2010; Leyfer, Gallo, Cooper-Vince, & Pincus, 2013), externalising disorders (Fraire & Ollendick, 2013), and eating disorders (Hudson, Lyneham, & Rapee, 2008), which may lead to further difficulties identifying children and adolescents with anxiety disorders. The presence of additional mood or externalising problems may overshadow the anxiety problems and complicate treatment (Knight, McLellan, Jones, & Hudson, 2014).

Empirical Support for Cognitive-Behavioural Therapies for Youth Anxiety Disorders

In light of the high prevalence and unwanted impact of anxiety disorders in children and young people, several treatments have emerged with strong empirical support including within schools in Australia. The most efficacious psychological treatment for youth with anxiety disorders is cognitive behavioural therapy (CBT) (Hollon & Beck, 2013). CBT teaches children and adolescents skills to reduce anxiety to manageable levels and prevent interference in day-to-day life. CBT techniques address anxiety-maintaining factors including cognitive distortions and avoidance. Treatment also involves providing children with psychoeducation about anxiety, teaching children to identify, regulate, and manage anxious cognitions and feelings, guiding the child through exposures to previously avoided stimuli, and in some cases, providing social skills training.

Of the various CBT treatments for anxious youth, the *Coping Cat* programme was the first to receive empirical support (Kendall, 1994;

Kendall & Hedtke, 2006a, 2006b). It was developed for youth aged 7–13 and also adapted as the *C.A.T. project* for adolescents aged 14–17 (Kendall, Choudhury, Hudson, & Webb, 2002) with a variety of anxiety disorders including generalised anxiety disorder, social anxiety disorder, separation anxiety disorder, and co-morbid conditions. This 16-week individual format treatment has been demonstrated as efficacious in several randomised trials (Kendall et al., 1997; Walkup et al., 2008). Compared to waitlist conditions, youth aged 9–13 receiving *Coping Cat* experienced greater reductions in anxiety and related symptoms improved social behaviours and increased ability to cope with dreaded situations (Kendall, 1994). In the largest efficacy trial for CBT on child and adolescent anxiety to date (488 youth aged 7–17), researchers compared CBT (*Coping Cat/C.A.T. project*), sertraline (a medication used for children with anxiety or depression), their combination, and pill placebo. The percentage of children who were rated as very much or much improved was 60 % for CBT, 55 % for sertraline, 81 % for combination, and 24 % for placebo. Most treatment gains were maintained at 36-week follow-up (Piacentini et al. 2014; Walkup et al., 2008).

Although the *Coping Cat* programme has strong empirical support, it is not widely implemented in school settings due to its individual format and demand on service-provider time. Several empirically supported adaptations of the *Coping Cat* programme may be more feasible in the school structure and setting, including the *FRIENDS (*Lowry-Webster, Barrett, & Dadds, 2001) *and Cool Kids programme (*Mifsud & Rapee, 2005)*,* both developed in Australia, modular CBT in urban schools (Ginsburg, Becker, Drazdowski, & Tein, 2012); *Skills for Social and Academic Success* for adolescents with social anxiety disorder (Masia-Warner, Fisher, Shrout, Rathor, & Klein 2007); and the *Camp-Cope-a-Lot* (CCAL) programme, a computerised assisted form of *Coping Cat* (Kendall & Khanna, 2008). The *FRIENDS* programme is a universal school-based intervention implemented as part of the school curriculum to students aged 10–13 and delivered by trained classroom teachers, with parents invited to participate in three evening sessions. The programme demonstrated a significant reduction in levels of anxiety when compared to a control group (Lowry-Webster et al., 2001). A benefit of this universal intervention method is that it avoids the occurrence of stigma sometimes associated with individualised programmes as it is offered to the whole school population.

The *Cool Kids* programme is another indicated intervention provided by school counsellors and mental health workers to students aged 7–11. The school version of the Cool Kids programme involves eight 1-h sessions delivered by trained school counsellors during school hours to groups of 6–10 children. Parents are invited to participate in two separate sessions of 2 hours each. The intervention has been shown to be effective in reducing children's anxiety symptomatology when compared to waitlist, and differences were maintained after 4-month follow-up (Mifsud & Rapee, 2005). The school version of the *Cool Kids* programme has demonstrated positive results when delivered in Australian schools settings in urban and rural areas (Lyneham & Rapee, 2006).

A computerised version of *Cool Kids*, known as the *Cool Teens* programme, was developed for adolescents aged 12–18 with anxiety (Cunningham, Rapee, & Lyneham, 2006). This computer-assisted CBT (*CA-CBT*) programme is accessed through CD-ROM and includes eight 30-min modules completed at home over 12 weeks. Parents are provided resources regarding the strategies of the programme in order to support teenagers. Following completion of the programme, participants displayed significant reductions in anxiety, physiological symptoms, negative automatic thoughts, and life interference compared to individuals assigned to the waitlist (Wuthrich et al., 2012). In addition to the CD-ROM version, adolescents may access the same content and modality using a web-based programme known as the *Chilled Out* programme (www.chilledout.org.au).

Cool Teens and Chilled Out, and other CA-CBT programmes (e.g., *CCAL*) increase efficiency and accessibility of CBT for youth with anxiety disorders (Kendall & Khanna, 2008) are cost-efficient,

reduce the required contact hours and clinician burden, and can be utilised in multiple settings, including schools. *Camp Cope-A-Lot* (Kendall & Khanna, 2008) is a computer-assisted version of the Coping Cat programme for 7–13 year olds (www.WorkbookPublishing.com). A randomised controlled trial comparing *CCAL*, individual CBT (*Coping Cat*), and a computer-assisted control group found that youth in both computer-based and individual CBT were more than twice as likely to be free of their anxiety disorder compared to youth in the control condition, and also showed significantly greater changes in anxiety severity and global functioning which were maintained at a 3-month follow-up (Khanna & Kendall, 2010). Therapeutic alliance did not differ as a result of use of computer to deliver therapy, and *CCAL* showed an added advantage of increased treatment integrity and adherence relative to the non-computerised CBT (Khanna & Kendall, 2010). Further, the service providers in the study had no previous experience in providing CBT for youth anxiety, demonstrating that computer-assisted treatment can be easily implemented by school counsellors who may not have particular expertise in youth anxiety. Research is ongoing, examining the dissemination and implementation of *CCAL* in schools internationally (Brodman et al., in prep).

Guide to the Implementation of Empirically Supported Interventions

Two empirically supported treatments for anxious youth that can be implemented in a school setting are outlined: *Cool Kids and Camp Cope-A-Lot*.

Cool Kids

The *Cool Kids* programme can be implemented in group or individual format by school counsellors (Rapee, Lyneham, et al., 2006, Mifsud & Rapee, 2005). Students identified as anxious by classroom teachers and/or parents complete an assessment before starting the *Cool Kids* programme. Typically 6–8 students of similar age or school stage (e.g., K–2, grades 3–4 or 5–6 in primary school and grades 7–9 or 10–12 in high school) are invited to attend the *Cool Kids* programme offered either during school time or after school hours, depending on the degree of parental involvement required. The *Cool Kids* programme can take multiple formats but is composed of 10 weekly sessions of 1–2 hours each (individual format requires 1 hour sessions, while group format requires 2 hours sessions). Parent involvement can vary from attending weekly to attending two separate information sessions of 2 hours each, generally after the first and third child sessions. Booster sessions are recommended to students who finish the programme.

The aim of *Cool Kids* is to help youth identify anxiety symptoms and develop skills to reduce anxiety to manageable non-impairing levels. This goal is achieved by helping the child to identify and modify the factors maintaining anxiety—identification of physiological responses, cognitions and behaviours displayed in anxiety-provoking situations, and application of skills to gradually engage in challenging situations. Children are introduced to each of the skills through therapist instruction and modelling. Out of session practice, through homework assignments (practice tasks), is strongly encouraged through the use of rewards (Hudson & Kendall, 2002).

Case example—Cool Kids group programme in school. Max, a case example, is used to describe how *Cool Kids* can be used in a school setting in which parents were invited to participate. Max is an 11-year-old student at an Australian primary school. Teachers have always remarked that he is shy, has few friends, and could participate more in class discussions. At home Max is quite confident but has told his parents that he is very nervous about starting high school next year. Max is not just nervous about high school because he has to meet new people, but because he knows he will also need to have injections at school. Max has always been very frightened of needles and his parents have struggled to get him to complete his required vaccinations. Now that Max is in year 6, his parents have decided to speak with the school counsellor because they are concerned that he is not developing close friendships and that the increasing shift to

group work and larger projects in the senior years of primary school is causing him to fall behind academically. They also sense that his fear of injections will have a bigger impact on his life next year and would like to know what they can do to help him in advance. After information is collected from Max, his parents, and teachers, the school counsellor suggests that Max and his parents take part in the upcoming *Cool Kids* group programme she is running on Thursday afternoons in the school library. Max and his family agree to attend the programme and are pleased that they can learn skills to manage Max's worries with four other families with children in year 5 and 6 at the school.

Session 1—Overview of the Programme. During session 1 Max's school counsellor provides information about anxiety and talks to the students and their parents about their individual goals for treatment. After introducing the worry scale, see Fig. 1, she also asks the students to get to know their anxiety by recording the following four things when they feel anxious: (1) the situation, (2) the thoughts they are having—by asking themselves 'what do you think will happen?', (3) the intensity of the worry/fear—using the Worry Scale 0–10, and (4) the actions—what they do. After getting to know their anxiety, students and parents hear about how thinking affects the way we feel. They hear about thinking traps that we can fall into when we feel anxious.

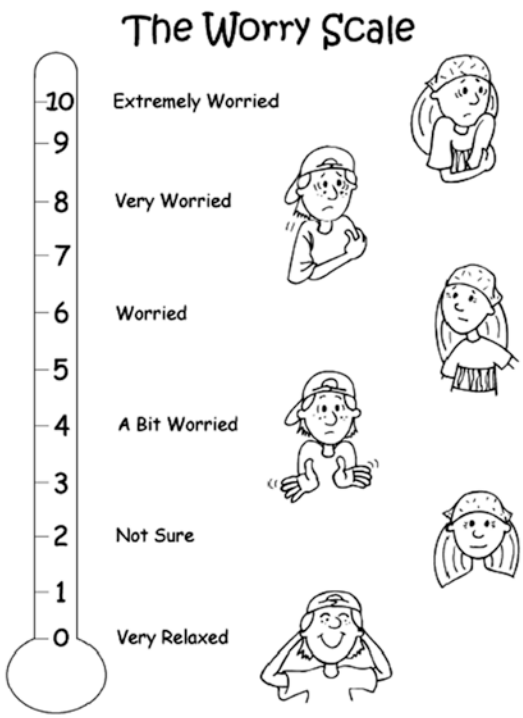

Fig. 1 Using the Worry Scale to rate the severity of the fear or worry

Session 2 and 3—Detective thinking. All sessions start with reviewing the practice task, problem solving any difficulties, providing stickers and praising for efforts, and practice task completion.

In session two students and parents learn detective thinking (or realistic thinking for parents). Starting on a small worry, students begin to collect evidence in situations to work out whether their thinking is realistic and helpful. They collect evidence by asking themselves evidence-finding questions like, 'what are the facts?', 'what else could happen?', 'what has happened when I have worried about this before?', and 'what has happened to other people?' Max completes detective thinking on the situation 'reading aloud in class,' which makes him feel a 7 on the worry scale (see Fig. 2 for Max's completed detective thinking worksheet).

In session 3 the school counsellor asks the students to come up with a reward menu that they can use to acknowledge their efforts facing their fears over the coming weeks and months. They also spend time revising and practicing detective thinking. With the parents alone, the school counsellor leads a discussion about the best ways to encourage brave and courageous behaviour in their children.

Session 4 and 5—Fighting Fear by Facing Fear. In session 4 and 5 students and parents learn about how to face fears gradually, so they can fight their fears. They design stepladders together as families, starting with fears that only cause a little bit of anxiety and increasing to bigger fears. Max and his family make a stepladder about feeling more comfortable at the doctor's surgery and getting needles. They also make a stepladder on giving a speech in class (see Fig. 3).

Max and his parents learn that the goal of exposure is to progressively face anxiety-provoking situations to reduce physiological arousal and

Detective Thinking Worksheet	
Event What is happening?	I have to read aloud in class.
Thoughts What am I thinking? What do I think will happen?	I'll mess up the words and get laughed at. **Worry Rating:** 7
What is the evidence? *What are the facts?* *What else could happen?* *What has happened when I have worried about this before?* *What has happened to other people?*	• I am good at reading and I read to my little brother all the time • Most people probably won't take much notice of me • If they laugh, maybe it could be that I was funny • I have read in class once before and no-one laughed at me • I haven't noticed anyone laugh when other people read in class
What is my realistic thought?	Even if I do mess up a couple of words, people probably won't notice. **Worry Rating:** 3

Fig. 2 Max's Detective Thinking Worksheet on having to read aloud in class

change unhelpful behavioural responses to the feared stimulus. Importantly, exposure helps provide extra evidence for cognitive restructuring, for example, that expectations about feared situations are often overestimated. A few rules for developing a hierarchy are described; the hierarchy steps have to be (1) practical, (2) repeated frequently, and (3) as anxiety occurs like a wave, individuals need to stay long enough in the situation to experience a decrease in their anxiety levels. Fearful stimuli need to be faced repeatedly for maximum learning and to break the avoidance cycle. In addition, the child needs to learn that he/she can cope with anxiety and can accurately collect evidence about his/her anxious vs realistic thoughts. Together, the group discusses ways to get the most out of their stepladders and help each other do detective thinking, so they can come up with useful evidence and arrive at realistic thoughts to help overcome their fears.

Children are taught to manage their physiological response or arousal in anxiety-provoking situations. The participants are guided to identify bodily responses (including heart racing, hyperventilating, sweating, trembling limbs, etc.) when in anxiety-provoking situations, once aware of bodily symptoms, participants then apply relaxation techniques. Controlled breathing is a common relaxation skill that requires the participant to breath in and out in a 6 second cycle: breathing in for 3 seconds and then out for 3 seconds. Whilst practicing this cycle it is recommended to focus on using the child's diaphragm muscles (Rapee, Wignall, Hudson, & Schniering, 2000). Children are also instructed in progressive muscular relaxation (PMR), a technique used to guide participants to alternate between tensing and relaxing different muscle groups.

Session 6–10—Problem Solving, Assertiveness and Dealing with Teasing. From Session 6 to 10 students do more work on facing their fears and using detective thinking, including practice fighting their fears in-session. They also hear about how problem solving can help them come up with solutions to difficult situations. Problem solving is a skill used to help children generate and choose adaptive responses rather than limited and avoidant

Stepladder		
Stepladder Goal: To be able to give a speech in class **Stepladder Reward:** Go to the movies with dad.		
Step		**Reward**
7	Read the sports report at assembly. *Worry rating: 9.*	Watch an episode of favourite show with Dad.
6	Practice 2 minute speech with my teacher. *Worry rating: 8.*	3 stickers on chart.
5	Practice 2 minute speech at home. *Worry rating: 7.*	Choose a special dessert.
4	Talk about my weekend at morning group. *Worry rating: 6.*	3 stickers on chart.
3	Answer a question during class discussion. *Worry rating: 5.*	2 stickers on chart.
2	Answer a question during small-group work. *Worry rating: 3.*	1 sticker on chart.
1	Talk at the dinner table for 2 minutes when family are visiting. *Worry rating: 2.*	Extra scoop of ice cream with dessert.

Fig. 3 Max's stepladder about giving a speech in class

solutions. First, the child is encouraged to identify a specific problem/situation (e.g., does not know how to do an assignment), and second, brainstorm possible solutions (e.g., try to understand the assignment on my own, ask the teacher to clarify, ask peers to clarify). The third step requires the individual to identify possible consequences for each solution. Evaluation of each solution occurs later as it presents an obstacle to creative brainstorming. In the fourth step, the short- and long-term advantages and disadvantages related to each solution are evaluated, and finally the best solution(s) are selected. During this process the therapist can assist the child to consider solutions that involve approach rather than avoidance.

The group also learns about being assertive and ways to outsmart bullying. Assertiveness skills are required for dealing with teasing and bullying can be applied. Individuals learn strategies to respond in a confident way and show that the teasing does not bother them. However, to master these skills, practice in a safe and supportive environment like role-play sessions is necessary. In addition, ignoring, getting an audience, and providing confident remarks and behaviours are recommended strategies for overcoming bullying.

In session 8 the group spends time fighting their fears in session. The school counsellor works with students to use detective thinking to help students face their fears and complete steps on their stepladders (e.g., asking for the time from the librarian or talking to people in the before and after school centre on school grounds). Students then learn how to use assertiveness skills to deal with teasing, and adding steps to their stepladder. In session 9 and 10 the group review the skills they have learnt to manage anxiety and fears, review their progress, and make plans for how they will continue to face their fears in the future.

The school counsellor worked with Max's teacher to ensure that Max was able to practice fighting his fears in the classroom. Both Max's parents and his teacher noticed that by the end of the programme he was participating more in class. Max made good progress during the 10-week term while he was completing the *Cool Kids* programme and continued to practice the *Cool Kids* skills so that his worries no longer stopped him from making friends, talking in class, and having needles. His parents also reported that they felt more confident in their ability to assist Max when he did get worried.

Camp Cope-A-Lot. *Camp-Cope-A-Lot* is a 12-level (session) computer-assisted CBT programme delivered in an individual format consisting of two main components: (1) Psychoeducation and skill development and (2) Exposure (Kendall & Khanna, 2008). The *Camp-Cope-A-Lot* programme, available on CD-ROM, uses Flash animation, audio, photographs, videos, schematics, a built in reward system, text, and animated cartoon characters to guide youth aged 7–13 through the programme. Each 'level' is 35-min and includes optional video game rewards. Further, the treatment programme can be individualised, both with regards to exposure tasks and programme pace, as well as theme music and videogames. During the initial six levels, youth learn to identify physiological, cognitive, and behavioural components of anxiety and practice techniques to reduce their anxiety. These skills are organised through the use of **FEAR** plan, a four-step process to help youth recognise and effectively cope with anxiety. The **FEAR** plan consists of: **F**eeling frightened, **E**xpecting bad things to happen, **A**ctions and attitudes that can help, **R**esults and rewards. These first sex levels of skill building are designed to be completed independently by youth, though assistance of the clinician, referred to as a coach, is welcome. Each step will be reviewed in detail below. Upon learning the FEAR plan, children then progress to the exposure stage of treatment during which they begin to apply their newly acquired skills to anxiety-provoking situations, completed with the assistance of a coach. Central to all CBT for anxiety is exposure to previously avoided situations. Both parents and children are taught that the first component of treatment prepares the child for the exposure component of treatment, and significant behavioural change is often not noticed until that point. Parent sessions are conducted with the coach (therapist), while the child works independently on levels 3 and 7.

Children are given a *Go-To-Gadget* workbook to accompany treatment. Between sessions youth complete homework assignments to prepare for contests in each upcoming session. Early contests focus on self-monitoring of anxiety and practicing skills, whereas later contests are at-home exposure tasks. By completing a contest (review), youth earn an opportunity to be rewarded by playing a videogame. If a contest was not completed prior to session, the youth complete it at the beginning of session. Built in computer games, ranging in content and age level, are available for rewarding youth for successful homework completion, session content, and efforts made to approach anxiety-provoking situations.

Level 1–6: Psychoeducation and skill development. The first level is largely devoted to introducing the treatment and establishing rapport. The *CCAL* programme is based on following a cat named Charlie who is anxious about attending summer camp for the first time. Charlie serves as a guide throughout camp, normalising anxiety and modelling effective coping behaviour. During the first level, the participant takes a tour of the camp and explores the programme. The camper can select music and customise the programme. If a clinician is assisting during this independent stage, they may play a game or activity designed to get to know each other better.

The second level focuses on building emotional awareness. Youth practice identifying different emotions by noticing other's facial expressions and non-verbal body language. Youth are also introduced to the **F** step—'feeling frightened?' where they are asked to notice different cues that their body is feeling nervous (heart racing, butterflies in stomach, sweating, etc.) (Fig. 4).

The third level involves teaching youth skills to relax when they notice they are feeling frightened, both by deep breathing and progressive

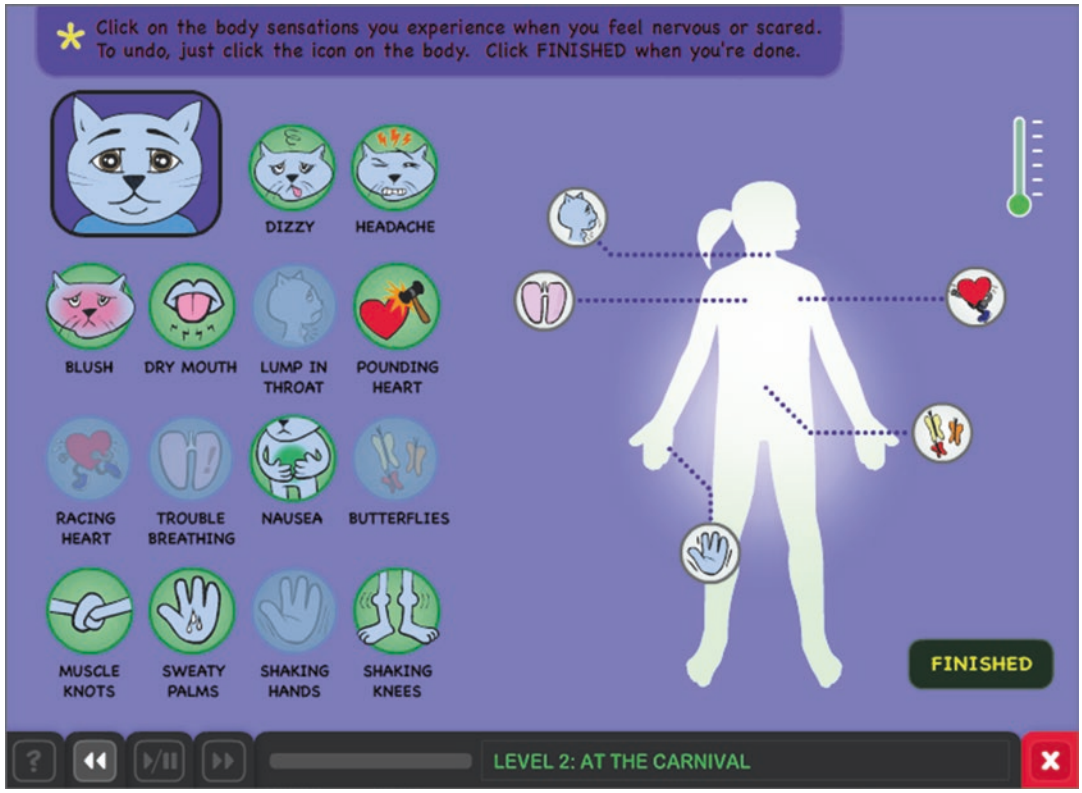

Fig. 4 Identifying body cues for when the child is feeling frightened

muscle relaxation (PMR). Youth are instructed to notice how tense their body feels when anxious compared to when they are relaxed. Youth can select videos on the *CCAL* programme to watch others modelling relaxation techniques and then are asked to join in. During the third level, the clinician meets with the parent while the youth works independently. The clinician answers questions about youth anxiety, the treatment programme, and ways for parents to help reinforce brave behaviour.

In the fourth level, youth shift from noticing how they feel to noticing what they are thinking. During this level, youth are taught the **E** step of the FEAR Plan: 'Expecting bad things to happen?' Youth are taught to recognise thinking traps, or negative self-talk, and listen to other new campers share what they're thinking before a camp-wide talent show. These fears help normalise negative self-talk and introduce youth to common thinking traps such as being a perfectionist, catastrophiser, and avoider. Youth are encouraged to practice challenging their thinking traps by asking and answering questions such as 'How accurate is this thought? How useful is the thought? What else could happen?' Youth use their answers to these questions to develop a coping thought (Fig. 5). Youth are also provided sample coping thoughts. For example, when expecting the worst will happen, a common coping thought may be 'It's almost never as bad as the worst'.

In level 5, youth learn problem solving. The campers in *CCAL* must navigate an obstacle course and youth are instructed to use four sequential steps to achieve their goals: using similar strategies as described in the *Cool Kids* programme. This level completes the **A**-step of the FEAR Plan: 'Attitudes and Actions that can help' which involves using the skills such as relaxation, coping thoughts, and problem-solving to help manage their anxiety.

Fig. 5 Identifying coping thoughts

Level 6 completes the psychoeducation component of *CCAL* and the final step of the FEAR plan: **R** 'Results and Rewards'. In 'results', youth reflect upon how their efforts coping in an anxiety-provoking situation. Did they cope using the FEAR plan or avoid a situation? Focus is placed on effort, rather than outcome. Youth discuss the importance of rewards for their hard work. Youth are provided videogame time for each exposure. During level 6, youth compile a hierarchy of feared and often avoided situations known as a 'Totem Pole'. Youth view a list of commonly feared situations and 'drag' the situations into their pile if they endorse being afraid of them. Youth then arrange the feared situations into low, medium, and high challenges along their Totem Pole.

Level 7 and beyond: Exposure. Beginning in the seventh session, youth practice applying their newly acquired skills to anxiety-provoking situations through exposure tasks, or Totem Pole challenges. Youth are provided information about the purpose of these challenges and are informed that they may initially feel more uncomfortable as they approach an anxiety-provoking situation yet over time each situation will become easier and less anxiety provoking. Youth can also view several video clips on *CCAL* that show other characters completing exposure tasks. These video help demonstrate how exposure tasks are designed and completed, normalise the process of completing an exposure task, provide various examples of types of exposures, and serve as coping models for the youth (Khanna & Kendall, 2010). A second parent meeting occurs at level 7 to prepare parents for exposures and review the FEAR plan.

Youth work with their coach (adult) to select challenges from their Totem Pole, beginning with 1–2 low level challenges. The coach assists in arranging opportunities and materials for each exposure task. The youth and coach prepare by applying the FEAR plan to the situation. Exposures are designed as behavioural experiments. Youth are asked to rate how distressed they feel on a feelings thermometer before and after each challenge. Following the challenge, youth are encouraged to reflect on their feared beliefs and if the outcome occurred, and if so, did they cope. Youth are encouraged to evaluate the

change in numbers on the feelings thermometer. The coach provides encouragement and reinforcement for completing the task and helps limit subtle avoidance, such as avoiding eye contact. Upon successfully completing an exposure challenge, the youth and coach collaborate in planning for future exposures, which occur both in-session and at home and gradually increase in difficulty. As therapy goals are met, therapy reaches its conclusion. Youth and the coach reflect on successes, discuss relapse prevention, and provide the youth with a certificate.

Ethical and Legal Issues

A number of codes of ethical conduct that have been written to guide school counsellors and psychologists, including codes from Australia Psychological Society and from the Psychology Board of Australia and Australian Psychologists and Counsellors in Schools Association. Given the association between emotional health and increased risk for victimisation (Cohen & Kendall 2015), it is important to consider the advantages and disadvantages of identifying children at risk within the school setting. School professionals trained to deliver the intervention need to be supported and educated about the importance of confidentiality regarding mental health. It is wise for counsellors to be aware of the mandatory reporting rules for child protection within their state or territory.

Examples of Research to Guide Practice and Further Suggested Readings

Recent research has begun to consider factors that may impact students' motivation to seek mental health support. Of Australians with mental health disorders, male adolescents are the least likely to seek treatment, with only 13.2 % of 16- to 24-year-old males seeking help compared to 31.2 % of 16- to 24-year-old females (Burgess et al., 2009). In adolescence, perceived stigma, poor mental health literacy, and a preference for self-reliance serve as barriers to help-seeking (Gulliver et al., 2010). One possibility is that online psychological treatment may be a more effective method of delivery for this age group as it minimises many of the barriers to traditional treatment (e.g., increased privacy, self-directed).

Conclusions

The main goal of anxiety treatment in schools is to teach students to cope with their anxiety and encourage students to gradually face feared situations, as avoidance will maintain anxiety. It is important for school personnel to not accommodate avoidant behaviour, such as allowing students to avoid public speaking, as such accommodations do not help reduce anxiety. Instead, teachers and school counsellors should provide a supportive environment in which students can face anxiety-provoking situations in a gradual fashion. As students spend most of their days in schools, schools and school personnel are integral to supporting students and families with anxiety disorders.

Test Yourself Quiz

1. Children with social anxiety often exhibit fear and avoidance when asked to speak aloud in front of the class. What intervention might a school psychologist recommend to the teacher?
2. Stephen is a 7-year-old boy who has difficulty starting the school day and separating from his mother. He often cries in the morning and expresses worry about his mother remembering to pick him up. What strategies may a school psychologist recommend to the mother and teacher?
3. Nicole is a 10-year-old girl who avoids eating at school or being near classmates who complain about stomachaches due to worries that she may vomit. What behavioural interventions might a school psychologist suggest to the teacher or student?
4. Isaac is an 15-year-old boy who worried about making mistakes and takes excessive time on

tests, often not finishing before the assigned time is complete. He states he worries about getting good grades and not getting into a good University. What intervention might a school psychologist use with the student?

5. Children with generalised anxiety disorder frequently seek reassurance and ask a lot of 'what if' questions? What suggestions might a school psychologist make to a teacher working with these students?

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Evidence-Based Assessment and Intervention for Depression in School Psychology

Michael S. Gordon and Glenn A. Melvin

Depressive disorders are one of the most common psychiatric conditions seen in childhood and adolescence (Merikangas et al., 2010). In fact, it is highly likely that school psychologists will support a number of students with a depressive disorder during their working life. Thielking (2006) found that depression was one of the most frequently cited student issues with which Australian school psychologists work, with 77 % of school psychologists indicating that they work with students experiencing depression (Thielking, 2006).

Major depressive disorder (MDD) is the commonest psychiatric condition which arises in the adolescent years (Merikangas et al., 2010). Depressive disorders are associated with significant co-morbidity, morbidity and mortality (Scott et al., 2014). MDD is, more often that not, associated with another psychiatric condition such as anxiety disorder or an eating disorder. MDD runs a median duration of 1–2 months in community (non-referred) adolescents but is more chronic in adolescents clinically referred for treatment with average duration of around 8 months (Birmaher et al., 2007). About 80–90 % of those with depressive disorder will remit by 2 years (Melvin et al., 2013) but it should be noted that while their depressive symptoms may have abated in many their overall functioning may have not returned to premorbid levels. In an Australian community study, 66 % of depressed adolescents were not in treatment (Rey, Sawyer, Clark, & Baghurst, 2001). While the depression will remit in most adolescents, depression is a recurring condition, in which 50 % of adolescents will have at least one more episode of depression within 5 years after their initial episode of depression and in about 10 % of adolescents their depression will run a chronic course (Melvin et al., 2013). Of concern for schools, in adolescents with depression, a significant number will suffer with school refusal, struggle to complete schoolwork and homework, and struggle with suicidal thoughts and behaviours (Rey & Hazell, 2009). Depression is also the most common medical or psychiatric condition among adolescents associated with attempted suicide and suicide (Gould et al., 1998) with 30 % of depressed adolescents attempting suicide (Rey & Hazell, 2009). Children in primary school who are depressed have similar symptoms to those seen in adolescent depression noting that suicidal behaviours are much less

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common and maladaptive coping strategies (cutting and substance use) very rarely occur in this younger age group.

This chapter will focus on depressive disorders in children and adolescents in contrast to depressive symptoms or adjustment problems. The chapter will detail the development of the history of depression as it was first recognized in children and adolescents, detailing the epidemiology, familial factors and symptoms. The chapter will address the contemporary treatments and provide practical advice for the school psychologist in the identification and management of depression as it presents in the school.

It is the purpose of this chapter to describe the different types of depressive disorders, the phenomenology of the condition and the symptoms for teachers and psychologist to look out for. The treatment options for depression are presented. The school psychologist has a role in identifying those students at risk, providing an immediate assessment of the child or adolescent, developing an understanding of the family and possible risk factors that may contribute to or maintain some of the depressive symptoms, considering and making a referral to an external professional, coordinating a return to school meeting and monitoring of the student's progress. In many cases, students are unwilling or unable to attend external appointments due to a number of factors (such as transport issues, lack of parental consent, minimally motivated student, public mental health service waiting list, to name a few) so, more often than not, a school psychologist must provide therapy to the student 'in-house'.

Historical Perspectives

Depression was a contentious diagnosis in children and adolescents prior to the 1970s. The second edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-II), which was published in 1968, did not mention depression in childhood. In the first half of the twentieth century, psychoanalysis was the predominant psychiatric and psychological paradigm. A dominant belief was that depression could only occur if the young person had a superego in order to experience guilt. This meant that as the superego had yet to develop in children and most adolescents, *theoretically* children and adolescents could not be depressed. However, the first epidemiological surveys of 9- and 11-year-old children in London and the Isle of Wight in 1970 using modified adult criteria established that children could both be depressed and that it was very common (Rutter, Tizard, Yule, Graham, & Whitmore, 1976). This historical perspective and an emphasis on understanding adult mental illness have contributed to the reduced amount known about depressive disorders in children and adolescents.

Symptoms of depressive disorder. One approach to understanding depressive disorder is to consider depressive symptoms as occurring in three clusters, namely, mood, biological and psychological symptoms (Rey & Hazell, 2009). Mood symptoms include sadness, crying, withdrawal or loss of pleasure. Biological symptoms are loss of appetite, increase in appetite, loss or gaining of weight, sleep problems, loss of energy or libido. Psychological symptoms consist of impaired concentration, low self-esteem, suicidal ideas, worthlessness or excessive guilt and lack of motivation. While in children and adolescents irritability is counted as a mood symptom, and lack of *expected* weight gain can be counted as a biological symptom, both of which are not counted towards the diagnosis of adult depression. Further, hopelessness is not in the Diagnostic and Statistical Manual of Mental Disorders Fifth Edition (DSM-5) (American Psychiatric Association, 2013) as a psychological symptom, however has been found it is a very important predictive symptom related to suicidal behaviour in the course of depressive disorders (Beck, Brown, Berchick, Stewart, & Steer, 2006) and should be inquired about in any depressed child or adolescent. Symptoms of depression or anxiety or signs that might prompt the teacher to refer a student to a psychologist are listed in Table 1.

In children and adolescents with chronic medical conditions (such as cancers, juvenile arthritis, epilepsy), it can be difficult to decide if these

Table 1 Flags for teachers and parents to be aware of for the presence of depression and anxiety in students (and that may prompt a referral to the school psychologist)

Depression
• Withdrawn into their room, withdrawal from friends
• Prolonged sadness, cranky, moody, increase in anger
• Loss of appetite, loss of weight, increase in appetite (comfort eating)
• Struggling to concentrate (especially in subjects they were good previously at)
• Drop off in school marks
• Poor self-esteem
• Guilty thoughts
• Suicidal thoughts, self-harm
• Can't see things getting better in the future
• Lack of interest in normal fun or enjoyable activities
• Lack of motivation towards schoolwork
• Sleep disturbance, inverted sleep cycle
• Preoccupation and identification with morbid themes in music and literature
• Negative thinking and negative appraisals of social situations with peers and adults (an attitude of being victimized and misunderstood by others)
• Excessive use of and addiction to computer screens
Anxiety
• Frequent school absences, not attending school, frequently physically sick/unwell, in sick bay and other avoidant behaviour
• Drop off in school performance, capable but avoids presenting work, poor concentration
• Excessively worried, excessive need for reassurance, unrealistic worries
• Excessive tiredness
• Overly clingy (smaller children)
• Irritable, tantrums with disappointments, hypersensitive, moody (smaller children)
• Frequent checking, washing, counting, or touching
• Reliance on friends (especially adolescent girls) to accompany them to feared situations

patients are depressed if one relies solely on biological symptoms. Sleep disturbance, loss of appetite, weight changes (loss or gain), concentration problems and loss of sexual interest can arise as a result of chronic illness and hospitalization. The presence of psychological symptoms of depression (low self-esteem, hopelessness, suicidal ideas) can usefully discriminate those children and adolescents who are depressed with those who are medically unwell and are not depressed.

Types of Depression

Depressive symptoms are experienced on a spectrum from mild to severe. The nine DSM-5 symptoms of depression are depressed mood, diminished interest or pleasure, significant weight loss, insomnia or hypersomnia, psychomotor agitation or retardation, fatigue or loss of energy, feelings of worthlessness or guilt, concentration difficulties and suicidal thoughts or behaviours (American Psychiatric Association, 2013). When a child or adolescent has five (or more) of the nine depressive symptoms for more than 2 weeks, then they have met DMS-5 criteria for major depressive disorder.

When the child or adolescent's depression lasts for more than 1 year but is less than five depressive symptoms, it satisfies criteria for a persistent depressive disorder (PDD) (American Psychiatric Association, 2013). In contrast with child and adolescent PDD, adult PDD has a time specifier of 2 years. When a child or adolescent's depressive symptoms last for less than 1 year and less than five depressive symptoms are present, then this condition constitutes a minor depressive disorder. Two thirds of adolescents who suffer with subthreshold (i.e., minor) depressive symptoms go on to develop MDD (Klein, Shankman, Lewinsohn, & Seeley, 2009). A number of adolescents who attempt suicide will be diagnosed with minor depression (Sihvola et al., 2007). Those children and adolescents who suffer with PDD are at risk of developing co-morbid MDD, which is known as double depression (Birmaher et al., 2007; Rey & Hazell, 2009).

Co-morbidity of MDD. MDD is a highly co-morbid condition (Birmaher et al., 2007; Karlsson et al., 2006). When diagnosing depression, it is worthwhile to look for other psychiatric conditions. MDD is more likely than not associated with another psychiatric condition such as anxiety disorder, dysthymic disorder, disruptive disorders (such as conduct disorder, attention deficit hyperactivity disorder), autism spectrum disorder, and in adolescents, an eating disorder, borderline personality traits and substance use (Birmaher et al., 2007; Karlsson et al., 2006). If the clinician undertakes making a timeline with

the young person or parents, then they are likely to find that the co-morbid condition (e.g. anxiety disorder, ADHD) came first and that the depressive disorder follows later in the timeline. The two exceptions to this are substance use, following depressive disorder in which the young person is self-medicating their depression with alcohol, nicotine, cannabis or another illicit drug, and Bipolar Affective Disorder, in which the first mood swing is likely to be depression.

Prevalence. Depressive disorders are amongst the most commonly experienced disorders experienced by adolescents. A nationally representative face-to-face survey of 10,123 adolescents aged 13–18 years conducted in the USA found 11.7% of adolescents had experienced major depressive disorder or dysthymic disorder at some point in their adolescence (Merikangas et al., 2010). In comparison, an Australian survey of 3171 children aged 6–17 years reported an overall 1-year prevalence of DSM-IV depressive disorders at 3% (Sawyer et al., 2001).

The reason for the increase in depression from childhood to adolescence is not well understood but it is likely relate to biological factors including the onset of puberty, changes to sex hormones (oestrogen, progesterone, testosterone), as well as other hormones (cortisol, thyroid stimulating hormone, growth hormone) (Allen & Sheeber, 2008; Goodyer, 1995). Psychological factors including separation-individuation from parents, conflict with parents and peers, and identity issues are likely to play a role in the increased prevalence of depression in adolescence (Allen & Sheeber, 2008).

Suicidal Behaviour and Non-Suicidal Self-Injury

Risk of suicide is often the most concerning aspect of depressive disorder in children and adolescents. Research among Australian youth has shown that 74% of adolescents with depressive disorder experience suicidal ideation making it one of the most common symptoms of the disorder (Patton, Coffey, Posterino, Carlin, & Wolfe, 2000). Mood disorders have been shown to be the most common diagnosis experienced by adolescents who die by suicide. Suicidal ideation can tend to wax and wane over time and is often ambivalent, meaning that repeated assessment is often warranted. A comprehensive discussion of the issues related to the assessment and treatment of suicidal children and adolescents are addressed in Chap. 15.

Some adolescents with depressive disorders intentionally injure themselves without any intention to die as a result of the injury (e.g., cutting or burning of skin). This non-suicidal self-injury (NSSI) may be motivated by a need to manage strong emotions. Self-injury includes but isn't limited to cutting, scratching or burning with heat, flame or chemical. Onset of NSSI is commonly around 12–14 years (Jacobson & Gould, 2007). A recent international study found that depressive symptoms were amongst the leading risk factors for NSSI during adolescence (Brunner et al., 2014). NSSI in students can result in anxiety in school staff who in a recent survey identified the need for more training in this area (Berger, Hasking, & Reupert, 2014). Concern has arisen in recent years about contagion of NSSI within settings such as schools. Social modelling, in which adolescents observe and imitate their peer's maladaptive coping strategies in response to various stresses, appears to be a mediating variable in the contagion effect of NSSI (Jarvi, Jackson, Swenson, & Crawford, 2013).

Family History, Genetics and Developmental Factors in the Aetiology of Depression

Depression runs in families. Depressed parents have a two to four times risk of having depressed children than parents without depression (Beardslee, Gladstone, & O'Connor, 2011). Research on a twin's siblings offers an insight into the genetic loading of psychiatric (and medical) conditions. For conditions that have a genetic basis, identical twins who have exactly the same genes have a higher rate of the condition than fraternal twins who only share half the same genes. From these twin studies it is estimated that MDD has between 30 and 50% genetic basis in older adolescents (Thapar & Rice, 2006). The genetic

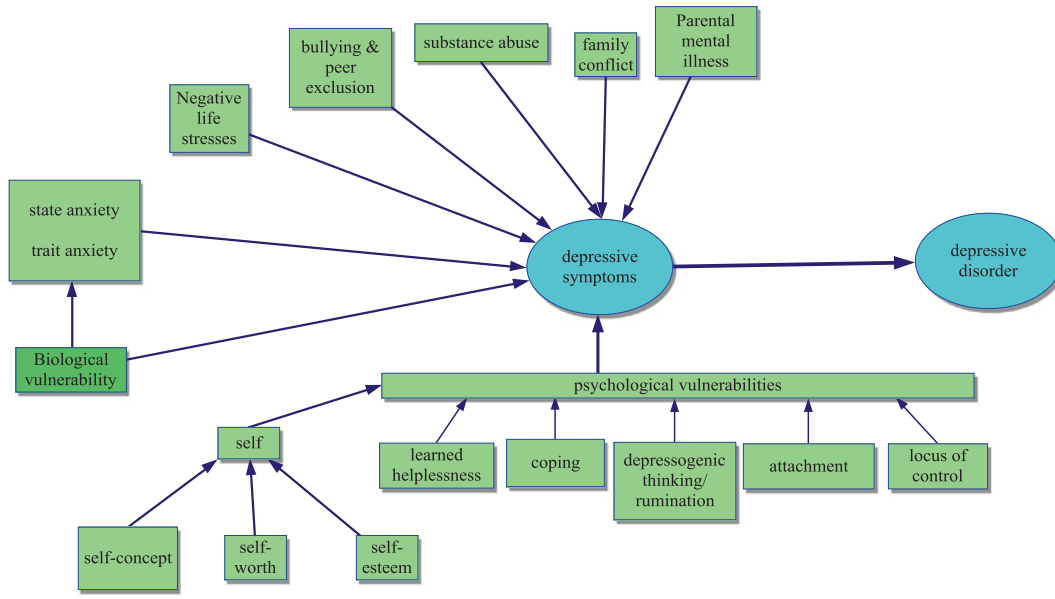

Fig. 1 Factors implicated in the development of depressive disorders

contribution for MDD is much lower than other psychiatric conditions such as autism (90 %), schizophrenia (70–85 %), bipolar affective disorder (60–85 %) and other anxiety disorders (40–70 %).

Genetics may underlie anxious and perfectionism, neuroticism and learning problems, conditions that are associated with depression (Hansell et al., 2012; Huey & Weisz, 1997; Kiuru, Leskinen, Nurmi, & Salmela-Aro, 2011; O'Connor, Rasmussen, & Hawton, 2010). While the genetic factors make a significant contribution to the development of depression, only 40 % of the variance is explained by genetic factors. Child and adolescent factors that are related to depression are low self-esteem (Orth, Robins, Widaman, & Conger, 2014) and maladaptive coping style (Betts, Gullone, & Allen, 2009; Murberg & Bru, 2005). A number of aversive environmental factors have been implicated in the development of depression including social isolation, life stressors, sexual abuse, familial poverty, familial conflict, peer relationships, high levels of parent control, family conflict, perceived emotional support and bullying from peers (Allen & Sheeber, 2008; Beardslee, Gladstone, & O'Connor, 2012). For better or worse, parents model to the child how to cope, well or poorly, with life stresses. Mothers who engage in suicidal behaviour have children who are more likely to report suicidal thoughts and plans (Geulayov, Metcalfe, Heron, Kidger, & Gunnell, 2014). When the parents model maladaptive coping skills (e.g., deliberate self-harm, drug use) to the child or engage in parenting characterized by low nurturance and high overprotection, this makes the child more vulnerable to depression (Betts et al., 2009). Factors related to the development of depression are detailed in Fig. 1.

Differential Diagnosis

Two uncommon but important psychiatric conditions can mimic MDD. Mania, as seen in Bipolar Affective Disorder, is relatively rare in childhood but not uncommon in adolescence. Between 3.6 and 6.1 % of adolescents with MDD will develop a Bipolar Affective Disorder (Curry et al., 2011; Melvin et al., 2013). Ninety percent of those adolescents who ultimately develop Bipolar Affective Disorder II will have depression as their first mood swing with only 10 % will reported to have mania as the first mood swing (Baldessarini et al., 2010). Treating the depressed adolescent with an antidepressant can lead to a manic switch, which is

a manic episode induced by the use of antidepressants. The symptoms of mania are similar and different to depression. Unique symptoms of mania include elevated mood, grandiosity, decreased need for sleep, racing thoughts, increased energy and activity. In both depression and mania, insomnia and impaired concentration can be seen. In mania however, those adolescents don't sleep more than a few hours, feel full of energy and believe that they don't need sleep. This is unlike those who are depressed who wake tired, feel that the sleep has not been restful and are usually tired through the day. Clue that the depression might be a bipolar illness rather than a unipolar depression is the presence of a family history of bipolar affective disorder, depression with psychotic symptoms, or hypomanic symptoms following the use of antidepressant medication.

Another condition that can be confused with MDD is the prodrome of schizophrenia. While schizophrenia is very rare in children, it is seen in later adolescence (Okkels, Vernal, Jensen, McGrath, & Nielsen, 2013). The prodrome of schizophrenia can encompass a variety of psychiatric symptoms including anxiety, anger, psychosocial deterioration, irritable mood, sleep disturbance and depressive symptoms. The diagnosis of the prodrome of schizophrenia is a challenge. In many instances it may not be possible to diagnose schizophrenia until after psychotic and negative symptoms are present. To confuse matters the negative symptoms of schizophrenia (lack of motivation, social withdrawal, impaired concentration) overlap with depressive symptoms. The possibility of a schizophrenic prodrome where it arises requires referral to a child psychiatrist or Child and Adolescent Mental Health Service (CAMHS) for an opinion.

A number of medications commonly cause psychiatric symptoms such as Prednisolone, a Corticosteroid used for asthma and autoimmune conditions, anticonvulsants (such as Levetiracetam), and acne tablets (such as Isotretinoin), which may make an accurate diagnosis of depression among youth a challenge. Sometimes antidepressants, despite their name, can worsen depression. The clinical deterioration is likely to coincide with commencing the medication. Feedback from the school psychologist to the parent and/or prescriber can assist with the child or adolescent's management. For some medications, the onset of psychiatric deterioration may lag well after the medication has been started and only noticed at higher dose. In these cases, feedback to the prescriber may be useful in the decision to stopping the medication.

Role of the School Psychologist

The school psychologist has a central role in the management of the depressed child or adolescent. The school psychologist has a role in identifying those at risk, assessment of the child or adolescent, developing an understanding the family, referral to an external professional, coordinating case management and monitoring of the student.

School psychologists will be required to assess students for the presence of a depressive disorder. Assessment is predicated on knowledge of diagnostic criteria and at times it can be a challenge to distinguish a depressive disorder from normal human sadness, grief or experiences of distress in the context of peer problems or family conflict. In this instance, watchful waiting can be an appropriate response to test the duration of symptoms, for example at least 2 weeks of symptoms are required for the diagnosis of MDD. An important component of assessing depressive disorders is to gauge the degree of functional impairment and the depressive level of symptoms. Symptoms that suggest significant functional impairment include inability to attend school, withdrawal of the young person into their room for several hours, not joining the family at meals or outings, not seeing their friends, declining grades at school and inverted sleep–wake cycle.

Assessment of Depression Among Youth

The level of depressive symptoms can be measured on self-report measures such as the Children's Depression Inventory 2(CDI-2) (Kovacs, 2004), Mood and Feelings Questionnaire (MFQ) (Angold & Costello), Beck Depression Inventory for Youth II (BYI-II) (Beck, Beck, &

Jolly, 2015), Zung Depression Self-Rating Scale (DSRS) (Zung, 1965), Center for Epidemiological Studies-Depression Scale (CES-D) (Roberts, Andrews, Lewinsohn, & Hops, 1990), Reynolds Child/Adolescent Depression Scale 2 (RCDS-2/RADS-2) (Reynods, 2002), Quick Inventory of Depressive Symptomatology (QIDS) (Rush et al., 2003) and the Beck Depression Inventory-II (BDI-II) (Beck, Steer, & Brown, 1996). The CDI, MFQ, CES-D and BDI-II have frequently been used in research for depressed youth. The CDI is appropriate for use in children while the BDI-II has a question on loss of interest in sex (question 21), making it not appropriate for primary school-aged children. The MFQ and QIDS have both parent and child versions. The MFQ, CES-D, QIDS and DSRS are free to use. The MFQ is available from Duke University (Angold & Costello, 2008). For a review of questionnaires used in the assessment of child and adolescent depression, see Elmquist, Melton, Croarkin, and McClintock (2010).

While depressive disorders are relatively common, a large number of schoolchildren do not have parents who recognize that their child might be depressed. There is low to moderate agreement between the parent and child reports of depressive symptoms (De Los Reyes & Kazdin, 2005). Teachers are well placed to refer the child to the school psychologist but they too may not recognize the signs of depression. It is important for the school psychologist to be providing in-service and informal education to teachers and administration staff about the symptoms of depression as it presents in their students. A written referral pathway that is endorsed by the school allows for a referral of the student at risk as identified by the teacher to the psychologist, see Fig. 2. This written referral pathway affords clarity of roles, and addresses the needs of the student at risk and school governance issues. The referral pathway covers informal discussion between the teacher and psychologist, as well as face-to-face consultation assessment of the student by the psychologist with feedback to the teacher. As part of the referral pathway, escalation to the head or principal as necessary would be incorporated into the document.

In many circumstances, school psychologists provide psychological first aide, psychological triage, psycho-education, limited assessment, involvement of the parents, and as appropriate referral to a private psychologist, private psychiatrist, Emergency Department or public psychiatry service. The school psychologist can provide an array of treatments ranging from one-off assessments to weekly CBT over many months, and in some cases years.

In reality, very few school psychologists have the capacity to see all the young people who arrive at their door for long-term therapy. In most instances, the school psychologist will need to provide 'roadside assistance' assessment and therapy. Akin to the car mechanic who comes to the aide of the stranded driver who can't get their vehicle going, the school psychologist will see most young people for several sessions and either get them back on the road (back to class) or refer them on for a tow to the garage (i.e. external professional) for more intensive look at the problem on the hoist. Many parents will want and even insist that the young person is 'fixed' at the roadside, but in many cases this is not possible. The school psychologist is one part of the team to support the child and must work in collaboration with other health professionals. They will most likely not able to obtain all the information that would be gleaned by an external professional (four-generation genogram, family of origin of the parents, developmental history), and are not able to conduct all the aspects of therapy needed for effective treatment (family therapy, child-focused parent sessions, medicating child, medicating the parents).

In some instances, the school psychologist may themselves elect to manage the student without outside support. Key components of the psychologist's role may include engaging the child, fostering a therapeutic relationship, defining the rules of engagement (duration and timing of sessions, confidentiality, etc.), providing non-specific psychological support, developing a management plan and promoting mental health literacy in the young person.

Challenges for the psychologist are balancing confidentiality with the child while also involving

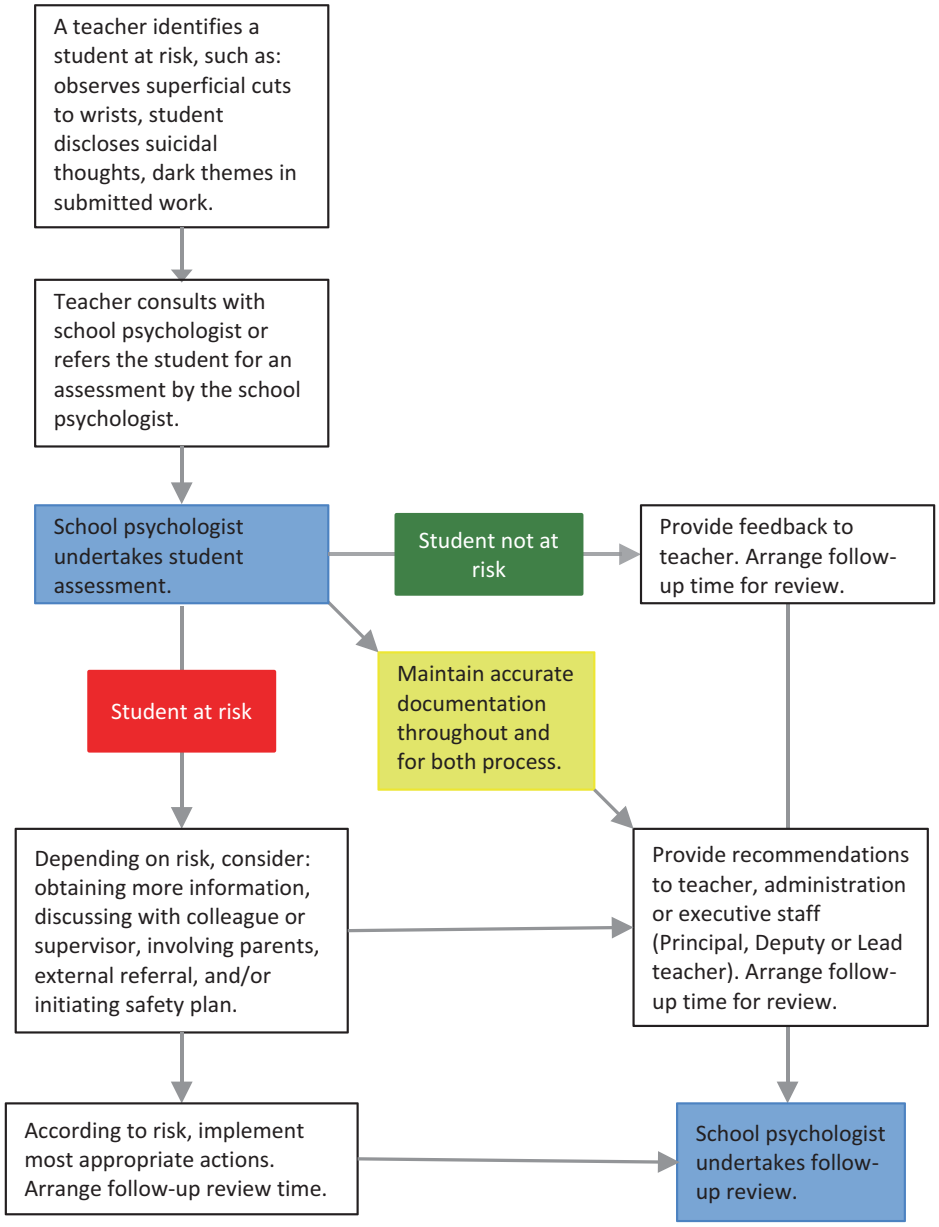

Fig. 2 Flow chart for referral and management of student at risk

the parent(s) in the management of the child's depression. This does not have to be an all or nothing proposition, with the psychologist being able to provide some but not *all* information about the child's therapy to the parent. The psychologist can engage the child by saying that they need to tell the parent some information and then negotiating what will be told to the parent being asked into the psychologist's office. Gaining the child's informed consent and giving the child autonomy around what information is or is not shared is crucial to a strong therapeutic alliance.

An important consideration for the psychologist is to share information at times of heightened clinical risk (self-harm, suicidal thoughts, past suicide attempt) with the parent. It is strongly

recommended that parents be told that their child is at an increased risk of suicide. However there are times when the risk is low (e.g., occasional superficial cutting) and the psychologist makes a decision to engage the young person and to better understand the risk before telling the parent. The child may request or insist (or even demand) that their parents are not told about a past suicide attempt or current suicidal thoughts. A clear approach for any child at risk is that at the start of the very first session the psychologist begins with a phrase such as

> "…anything that you tell me is in complete confidence unless I form the view that you are at risk, in which case I will have to let your parents know. Now, what is it I can help you with?"

This defines part of the relationship, boundaries and therapeutic contract between the young person and the psychologist. When the young person then discloses information that leads to the psychologist forming the view that the young person is at risk, the psychologist then can remind the young person about the contract.

There are some issues that may be beyond the skill set or the time available for the school psychologist to manage (such as the student reporting the presence of voices, substance abuse or an eating disorder). Further, school psychologists are not available on school holidays, leaving the student without any professional support. In many instances, the parents will seek out an external mental health professional to manage their child's depression.

Where a referral has been made externally for counselling and treatment it is essential that the external professional liaise with the school with the permission of the parent and the assent of the child or adolescent. The school provides the professional with timely feedback on the student's mental state and progress in school hours, and the external professional provides information on the safety plan, progress, change of treatment and advice out management at school, as appropriate.

To best support the student, three things would be beneficial to characterize the relationship between the school and the external professional: (1) respect for the role that each has in treating the student, (2) clear role demarcation (i.e. what is the school doing and what is the external professional doing), and (3) good lines of communication about the student. The school psychologist has a role in providing names as early as possible of appropriate professionals who are able to address the three requirements of a good working relationship.

Where a child has engaged in deliberate self-harm at school (i.e. non-suicidal self-injury), had an overdose, or presented to the Emergency Department with psychological distress, then consideration should be given to the development of a return to school plan. This is an urgent meeting with the parents, school psychologist, school administrator and involving the external mental professional (either in person or on the telephone). The purpose of the meeting is to identify the risk the young person possesses to themselves (and others), whether the student is to return part-time or full-time, the specific roles of the different professionals, provide clinical details as necessary, emergency contact details and the management plan should the student deteriorate. Where the parents are not keen to meet, then the school should consider excluding the student until the meeting has been held. An aide to this meeting is a document provided by the parent to be completed by the external professional and returned to the school. The document provides important information that allows the school to manage the student whilst in their care, see Fig. 3. This document should be sought for all children and adolescents at risk.

Evidence-Based Treatments

The school psychologist will often refer a child to an external mental health clinician for specific psychotherapy or psychotropic medication(s). It is important for the school psychologist to be aware of what evidence-based treatments to recommend to the young person and their parents, to be able to refer to a general practitioner or child psychiatrist for medication as appropriate, and to be able to know potential medication side effects as they arise in the school setting. Parents are likely to ask the school psychologist about the

Dear Ms, Mr, Dr, <insert name of professional>

Supportive School has a duty of care to all children and teenagers whilst they are on school grounds. In every instance the school offers the best possible tailored care regardless of the child's condition (e.g., epilepsy, asthma, diabetes, depression, anxiety, eating disorder). Supportive School does not discriminate in any way, but we do require specific medical and psychological information in order to care for each and every student according to their needs. In keeping with this, all students with medical and psychological needs require information to be provided to the school.

We require all the following information to manage <insert name of child> whilst they are in our care. This return to school plan is strictly confidential. We are seeking from you:

- *Diagnosis for <insert name of student>*
- *Formulation*
- *Medications*
- *A copy of the safety plan*
- *The preferred method of contact if <insert name of student> is very unwell (circle one):*
    - *Telephone*
    - *Email*

- *My preference for a case conference is by (circle one)*
    - *In person,*
    - *Telephone*
    - *Skype*

This return to school plan is should be to only be circulated with the following people at school (as negotiated with the parents, the school and young person):
Please return this document to <insert name of school counselor>.

Signed Dr. John Smith
Principal
Supportive School

Fig. 3 Template for a return to school plan

more contentious side effects of antidepressant medications, such as suicidal thoughts, and seek the school psychologist's recommendations on the matter.

At present, three clinical guidelines for the treatment of adolescent depression are relevant to the Australian context, namely, the Guidelines for Adolescent Depression in Primary Care treatment (GLAD-PC) released in 2007 (Cheung et al., 2007), the Australian beyondblue Clinical Practice Guidelines published in 2010 (beyondblue, 2010), and United Kingdom National Institute for Health and Clinical Health and Clinical Excellence (NICE) guidelines first published in 2005 and reviewed in 2011 (National Institute for Health and Clinical Excellence NICE, 2005). A *stepped-care* model is recommended and involved steps for the detection, recognition, and the treatment of depression related to the severity of the depression and whether there is a response to treatment at each step (National Institute for Health and Clinical Excellence NICE, 2005).

Cognitive Behavioural Therapy

Cognitive Behavioural Therapy (CBT) is considered the most evidence based psychosocial treatment (beyondblue, 2010). CBT is a manualized treatment that can be administered in an individual (Melvin et al., 2006) or group format (Lewinsohn, Clarke, Hops, & Andrews, 1990). Treatment usually lasts about 12–16 sessions and involves both behavioural strategies (e.g. activity scheduling, mood monitoring, sleep hygiene, problem-solving) and cognitive strategies (e.g. identifying cognitive distortions and modifying unhelpful thoughts). Some treatments involve parent sessions, and while clinically intuitive, the evidence demonstrating parental involvement is lacking, with a number of studies unable to show clear benefit (Clarke, Rohde, Lewinsohn, Hops, & Seeley, 1999; Lewinsohn et al., 1990). Two evidence-based treatment packages are available for free download including a group treatment programme developed by Lewinsohn and colleagues (Clarke et al., 2013) and a more contemporary and comprehensive individual treatment programme from the Treatment of Adolescents with Depression Study (Curry et al., 2005). Recently, a group-based mindfulness-based cognitive therapy for adolescent depression has been developed (Ames, Richardson, Payne, Smith, & Leigh, 2014). Initial pilot findings with a small sample suggested that the treatment is promising.

Interpersonal Psychotherapy

Interpersonal Psychotherapy (IPT) is underpinned by the notion that depression often occurs within the context of interpersonal conflict. For adolescents, empirical data supports this contention with prior research finding high levels of conflict with family (Restifo & Bogels, 2009) and peers (Armsden, McCauley, Greenberg, Burke, & Mitchell, 1990). Multiple studies support the use of IPT for adolescent depression (Mufson & Dorta, 2003; Mufson, L, 2010). Treatment focuses on improving unhelpful interpersonal interactions within families, the development of communication skills, clarifying roles within families and developing the capacity to compromise and negotiate.

Watchful waiting. A number of treatment guidelines recommend the use of watchful waiting (National Institute for Health and Clinical Excellence NICE, 2005). This might involve a school psychologist checking in with a student on a weekly to monthly basis and reviewing symptoms and psychosocial stressors to determine if there has been any deterioration.

Family therapy. Family processes including poor attachment and parenting behaviour are strongly associated with the onset and maintenance of depressive disorders (Restifo & Bogels, 2009) providing strong justification for the use of family approaches to depression. In contrast there is relatively limited evidence for family approaches to treatment. Diamond, Reis, Diamond, Siqueland, and Issacs (2002) have developed attachment-based family therapy for adolescent depression, a manualized approach that focuses on mending strained relationships and re-establishing trust within family relationships (Diamond et al., 2002).

Diamond and colleagues compared the treatment to a waitlist control for the treatment of adolescent depressive disorder. Attachment-based family therapy was found to be superior with 81% remitting following treatment. More recently the treatment has been modified for those adolescents with major depressive disorder who are also experiencing suicidal ideation (Diamond et al., 2010). This version of the treatment was shown to lead to superior improvement after treatment compared to Enhanced Usual Care in suicidal ideation and equivalent improvement in depressive symptoms.

Prevention of Adolescent Depression

Depressive disorders are difficult to prevent. Schools provide the ideal environment for the implementation of prevention programmes. The majority of programmes that have been evaluated have used education or cognitive behavioural skills similar to those used in CBT for adolescent depression. A recent Cochrane meta-analysis, which combines the results of carefully chosen randomized controlled trials in the area of health, found that using data from 14,406 children and adolescents from primary and secondary schools who participated in studies designed to prevent the onset of depressive disorder, support for efficacy of preventative programming was evident (Merry et al., 2012). Findings suggested that depression was less common following participation in prevention programmes compared to no intervention control groups immediately after the intervention and 12 months later; however, by 24 months there was no longer a significant difference between the groups. This is a heartening finding; however, the effect of the programmes was quite modest and the benefits wane over time. Given the state of the evidence, schools ought to be careful when selecting an intervention for prevention of depressive disorder and aware of the modest return of current programmes, though it ought to be acknowledged that there may be collateral benefits to participation in such programmes, such as improved problem-solving skills (Spence, Sheffield, & Donovan, 2003).

Antidepressants

There is an array of antidepressants available to the general practitioner for use in adult depression. However, it cannot be assumed that drugs that are effective and relatively safe for use in adult depression are also effective and safe in children and adolescents. The tricyclic antidepressants (TCA) are drugs that have been shown to be effective in adult depression but do not work in depressed children and adolescents (Hazell, O'Connell, Heathcote, & Henry David, 2002) and have more serious side effects for children and adolescents than for adults. Newer antidepressant agents include the Selective Serotonin Reuptake Inhibitors (SSRI; e.g. fluoxetine, sertraline, citalopram), the noradrenaline-serotonin reuptake inhibitors (e.g. venlafaxine, desvenlafaxine), the noradrenergic and specific serotonergic antidepressants (mirtazapine), melatoninergic agonist (agomelatine) and the reversible inhibitor of monoamine oxidase A (moclobemide). The best studied antidepressants in children and adolescents are the SSRI class of antidepressants.

Efficacy of antidepressants. In response to the understanding that depression occurred commonly in children and adolescents, the decade of the 1980s saw a large number of treatment studies using TCA. The end of the 1980s and 1990s saw the introduction of the SSRIs beginning with fluoxetine (Prozac) in 1988 and sertraline (Zoloft) in 1991 followed by other SSRIs (paroxetine, fluvoxamine, citalopram, escitalopram). The SSRIs have become into widespread clinical use in North America and Australia for the treatment of depression and anxiety in children and adolescents (Comer, Olfson, & Mojtabai, 2010; Efron et al., 2003). From 1990 to 2009 there were 14 randomized, placebo control studies that ran from 6–12 weeks, which were conducted in 2939 depressed children and adolescents (6–18 years) using SSRIs (fluoxetine, sertraline, escitalopram, citalopram, paroxetine) (Gordon & Melvin, 2014a). Of note, nearly all the studies were funded by the pharmaceutical industry and were conducted in North America. Fluoxetine is the study with the most consistent efficacy from three out of four studies. While seven studies

have reported superiority of drug over placebo, some of the results have been questioned because of changes in the primary outcome measures from study inception to publication in the paroxetine study (Jureidini & McHenry, 2009) and pooling of results from two sertraline studies to make the results appear to be statistically significant (Mann et al., 2006).

There have been five meta-analyses, which have shown negligible to small to modest improvement on antidepressants compared to placebo in depressed adolescents (Gordon & Melvin, 2014a). The drug that has consistently been shown to have efficacy over placebo in depressed adolescents is fluoxetine (Bridge et al., 2007; Gibbons, Hur, Brown, Davis, & Mann, 2012; Gordon & Melvin, 2014a).

Side effects of antidepressants. There is a large list of potential side effects of antidepressants in children and adolescents; for a comprehensive list see Table 2. There are common side effects such as headache and nausea, which in most young people are transient and occur at time the medication is commenced or when the dose is increased.

A frequently observed side effect of antidepressants is the withdrawal reaction. This is a series of unpleasant physical symptoms (nausea, anxiety, tiredness, headache, sleep disturbance) experienced if the antidepressant is suddenly ceased, as happens sometimes inadvertently (and sometimes deliberately) in adolescent patients. While antidepressants are not addictive, the medication should be withdrawn gradually to avoid the withdrawal reaction (Gordon & Melvin, 2013).

There are also other less common but potentially very serious side effects of antidepressants. The three rare but concerning side effects of antidepressants are (1) increased suicidal thoughts and behaviours, (2) serotonin syndrome, and (3) manic switching. When school psychologists recognise these side effects, it is advised that they seek medical attention for the student.

Suicidal thoughts and behaviours. An influential landmark ruling, which has affected antidepressant prescribing in North America, Australia and beyond, was made in March 2004 by the United States Food and Drug Administration (FDA), which put a black-box warning on all antidepres-

Table 2 Side effects of selective serotonin reuptake inhibitors

Non-psychiatric side effects		Psychiatric side effects	Rare
Most common	Other		
• Headache	• Sweating	• Insomnia	• Serotonin syndrome
• Nausea	• Flushing	• Sedation	• Hyponatraemia (probably more of an issue in the elderly)
• Vomiting	• Weight changes	• Suicidal ideas and behaviours	• Lowered seizure threshold
• Abdominal pain	• Sexual side effects	• Hypomania or mania (manic switching)	
• Dry mouth	• Flu-like symptoms	• Akathisia	
• Discontinuation syndrome	• Aches	• Agitation	
	• Rash and itchy skin	• Increased anxiety	
	• Epistaxis (nasal bleeding)	• Irritability	
	• Amotivation syndrome	• Hypersensitivity	
	• Decreased projected growth	• Anger	
		• Worsening of depression	
		• Tremor	
		• Crying	

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sants prescriptions in America (FDA, 2004). The FDA advised that there was an increased risk of suicidal thoughts and behaviours in children and adolescents who were given antidepressants. This ruling was based on a meta-analysis of children and adolescents who had been enrolled in the then available randomized control studies. In the combined cohort of 4400 children and adolescents, 2 % of children and adolescents reported suicidal thoughts and behaviours on a placebo (sugar pill), while 4 % of children and adolescents reported suicidal thoughts and behaviours on an antidepressant. There have been in total 11 meta-analyses that have confirmed that there is a small increased risk of suicidal thoughts and behaviours on antidepressants (Gordon & Melvin, 2014b). Further studies have suggested that the risk of suicidal thoughts and behaviours is a feature early in the course of antidepressant treatment (Gordon & Melvin, 2014b).

In summary, antidepressants can cause increased suicidal thoughts and behaviours in children and adolescents at the rate of up to twice the risk of a placebo. This occurs in approximately 1 in 25 young patients who are prescribed an antidepressant. Given that antidepressants are second-line treatments when psychotherapy has not worked, this should not preclude their use, but rather the parents and young person should be aware of this risk and they should be monitoring for this and the prescriber and school psychologist should be inquiring about this potentially serious side effect.

Serotonin Syndrome

Serotonin syndrome (also known as serotonin storm) is a toxic state related to an excess of serotonin. It is characterised by marked physical symptoms including muscle stiffness and spasm, increased reflexes, flushing of the skin, marked sweating, increased heart rate and temperature, and confusion and agitation. Serotonin syndrome occurs when two or more drugs increase serotonin levels; e.g. two antidepressants are given to the patient at the same time (Gordon & Melvin, 2013). Changing from one antidepressant to another requires gradual reduction and then change over from the first medication to the second antidepressant to avoid this toxic state from happening. While serotonin syndrome is rare, it can be life-threatening and requires immediate referral to an emergency department.

Manic Switching

In patients who are susceptible, the use of antidepressants can flip their mood from depression into a hypomanic or manic state with increased talking, distractibility and activity, grandiose delusions, irritable or expansive mood with decreased need for sleep and pressure of speech (difficulty being interrupted) and flight of ideas (thoughts moving quickly from unrelated topic to another unrelated topic). The risk of manic switching among children, adolescents and young adults is 5.4 % with the greatest time of risk in 10–14-year-old children (Martin et al., 2004)

Combination treatment of psychotherapy with antidepressant medications. Five studies have compared antidepressants with CBT in depressed adolescents (Gordon & Melvin, 2014a). Three of these studies reported no difference between CBT and combined CBT and an SSRI. The Treatment of Adolescent Depression Study (TADS), the largest of the four, found that the combination of CBT and SSRI was the most efficacious treatment followed by fluoxetine alone, and then followed by CBT only (TADS team, 2004).

Treatments other than counselling or prescribed antidepressants. There are a number of other treatments that have been used for child and adolescent depression. Hospitalization is the mainstay of treatment for those children and adolescents whose (1) suicide risk is unable to be managed in the home-setting with regular appointments and safety plan, or (2) whose diagnosis or formulation is in dispute, or (3) who those who have failed outpatient treatment. Day programmes are useful in those adolescents who require more intensive treatment than can be provided by an outpatient treatment. Electroconvulsive therapy (ECT) is an appropriate inpatient treatment for severely depressed adolescents with catatonic or

psychotic symptoms, who have not responded to multiple antidepressants and counselling and are at very high risk of suicide (Ghaziuddin & Walter, 2013; Maalouf, Atwi, & Brent, 2011).

Exercise has been described as a useful adjunct treatment for depressed adolescents (Hughes et al., 2013). Melatonin in doses of 1–4 mg at night is very frequently prescribed as a hypnotic in the treatment of insomnia associated with child and adolescent depression, as it appears to work, this is despite that the research evidence for this medication for treating the core symptoms of depressed adolescents is lacking. An array of other complementary medicines outside of the mainstream are often used for the treatment of child and adolescent depression including acupuncture, St. John's Wort, *S*-adenosyl methionine, omega-polyunsaturated fatty acids and valerian. At this time, there is a lack of data to comment about their efficacy (Rey, 2009). It would be important for the school psychologist to be aware of these treatments as they have been used by parents in preference to evidence-based treatments or delay the child coming into treatment.

Transcranial magnetic stimulation (TMS) is a promising novel, non-invasive treatment for depression in which high intensity magnetic field is applied to the scalp over the left dorsolateral prefrontal cortex for 30 min treatment sessions, five times per week for 3–4 weeks. This treatment has been shown to be effective in adults with treatment-resistant depression and is approved for the treatment of depressed youth. TMS has been described in case studies to be useful in adolescent depression although the results are preliminary (Donaldson, Gordon, Melvin, Barton, & Fitzgerald, 2014). It would be important for the school psychologist to be aware of TMS in the event that parents or teachers ask the school psychologist about this treatment.

Treatment of Depression in Vulnerable Groups of Children and Adolescents

Children with intellectual disability and autism spectrum disorder have higher rates of depression (and other psychiatric illness) than the general population (Tonge, Gordon, & Melvin, 2009). This group of young people may be a challenge to diagnose as the criteria for depression need to be modified for this group. For example, a challenge for clinicians in diagnosing young people with developmental disorders is whether to include depressive equivalents (e.g. counting challenging behaviour such as aggression and self-injury) as a symptom of a depressive disorder.

A further complication has been that there has been a paucity of research into the treatment of depression in those patients with developmental disorders including intellectual disability (Tonge et al., 2009). In nearly all of the antidepressant and psychotherapy treatment studies, patients with depression, intellectual disability and autism are excluded. There are no control studies in depressed children and adolescents with developmental disorders (Tonge et al., 2009). While young people with developmental disorders are often prescribed medications that are used for children and adolescents without a developmental disorder, it remains an open question if there are particular medications or other treatments that are specifically efficacious for this developmental at risk group.

Migrant children and adolescents, minority and those in refugee detention, are also populations who may be at risk of depression and other psychiatric disorders (Pumariega, Rothe, & Rogers, 2009; Robjant, Hassan, & Katona, 2009). Australian aboriginal youth are at particularly high risk of depression (Eldridge, Hotstone, & Pieris-Caldwell, 2007). These at risk population are discussed elsewhere.

Legal and Ethical Issues for School Psychologists

There are a number of challenges for school psychologists in the management of depressed children and adolescents. Common challenges are that the young person won't engage with the school psychologist, the young person refuses to consent to their parents being involved, and parents who will not take their children to see external professionals when recommended by the school psychologist. The duty of care afforded

by the school psychologist (and school) to the child is held to a very high standard. It is important that the school psychologist makes every attempt to assess the child (even when they are refusing to be seen), to engage the parents (even if they won't come in) or refer to an external professional (even when the parents or young person won't comply). Useful rules are to (1) always involve the parents when there is suicide risk; (2) to document all attempts to engage the parents in writing; (3) pair up with a senior staff member from administration when meeting with parents; and (4) write to the parents with your assessment, recommendations and urgency (as appropriate) of the next steps for them to take in helping their child. Consideration needs to be given to referring the young person to child protection where they are at heightened suicide risk and the parents are refusing to follow the recommendations.

A relatively new challenge for schools is the use and abuse of the Internet and of video gaming. Forty five percent of Australian children and 80 % of Australian adolescents exceeded the recommended 2 h per day maximum for screen-based media use (Houghton et al., 2015). While it has been speculated that social media, cyberbullying and addiction to screens are associated with depression in children and adolescents, the evidence for this association is mixed (Jelenchick, Eickhoff, & Moreno, 2013; Ko, Yen, Yen, Chen, & Chen, 2012). The pathological and excessive gaming and Internet abuse has been associated with depression as well as Attention Deficit Hyperactivity Disorder, substance abuse, social anxiety and hostility (Ko et al., 2012). Maladaptive and pathological use of screens has been associated with symptoms of withdrawal, secrecy, conflict with parents, inability to adhere to limit setting and excessive use as a means of escape from the real world (King, Delfabbro, Zwaans, & Kaptsis, 2013). Internet gaming disorder can be understood as an addictive disorder and has been included in the DSM-5 under conditions requiring further study (American Psychiatric Association, 2013). The nature of relationship between Internet gaming disorder and depression (causal or casual relationship) remains unclear. Like substance abuse disorders, it is likely that the Internet gaming disorder will need treatment separate to and alongside the treatment of the depression.

Summary and Key Points

- The first-line treatment for child and adolescent depression is identification and psychoeducation, and supportive counselling.
- The school psychologist has a pivotal role in providing psychological first aide (psychological roadside assist), psychological triage, psycho-education, limited assessment, involvement of the parents, and as appropriate referral to a private psychologist, private psychiatrist, Emergency Department or public psychiatry service.
- The school psychologist has a very important role in educating teachers, administrative staff and parents about appropriate referral and advocacy for adequate resources.
- Should the first-line therapy be unsuccessful or there is complexity or suicidal risk, the school psychologist can consider referral to an external therapist for a specific psychotherapy that has proven to be efficacious such as CBT or IPT.
- If initial treatment fails, the young person is moderately to severely depressed, and if the young person is suicidal or there is medical or psychiatric co-morbidity consideration should be given to a recommendation for an evaluation for a possible prescription of a medication trial of antidepressant medication such as a Selective Serotonin Reuptake Inhibitor (SSRI) which can be prescribed by a general practitioner, paediatrician or child psychiatrist.
- While antidepressants have been shown to cause a small increase in suicidal thoughts and behaviours, the risks of the medication need to be weighed up against doing nothing and ideation monitored by school-based professionals.
- The evidence for the efficacy of antidepressant medication is greater for depressed adolescents than for depressed children.

Case Study

Catherine is a 15-year-old adolescent girl, the elder of two girls from an intact family. Catherine is in Year 10 at St. Helga's Girls' Grammar School. The teachers at St. Helga's have been concerned about Catherine. In the last 6 months, Catherine's school marks have slipped from Bs and Cs to Ds and Es. She has missed at least 1 day per week over terms one and two, with headaches and tummy pains. Also over the last 6 months, Catherine's friends have been concerned about her withdrawing from them. These friends have seen superficial cuts to Catherine's wrists and have let the teachers at St. Helga's know. When the teachers have confronted Catherine about this, she has minimized the lesions saying that she fell into a rose bush on the way to school.

Most recently in English Catherine has written a very dark piece of creative writing describing a 15-year-old girl who commits suicide by jumping in front of a train from the platform next to the school. Catherine's English teacher has confronted her about this, but Catherine has again minimized the significance, saying that it was a work of fiction. The English teacher's concern is heightened, as there was recently a suicide in another school of a year 8 boy.

The English teacher, quite concerned, has spoken to Louisa, the school psychologist at St. Helga's. Louisa has made a time to see Catherine. Catherine has reluctantly attended. With some gentle coaxing, Louisa is able to engage Catherine and to obtain further information.

Over the last 2 years, Catherine reported that she has experienced lowered mood, with more sad days than happy over this time. Catherine has been withdrawing into her room. When she is at home, Catherine does not have meals with the family and engages them minimally. Catherine talks online with a friend she has made in America who has chronic fatigue syndrome and major depression. While she has not lost weight, Catherine has not been eating lunch for some months. Catherine has struggled with poor sleep; she wakes up tired and this continues across most of the day. Catherine's concentration has been poor for the last 6–9 months. Her self-esteem has always been low. On further prompting, Catherine reluctantly acknowledges that she has been cutting herself superficially for the last 12 months, on and off when she is distressed at night. Catherine denied any suicidal plans or past attempts.

Louisa asks Catherine to complete the self-report Mood and Feelings Questionnaire and the Schedule for Child Anxiety and Related Disorders.

The school psychologist diagnoses Catherine as having a Major Depressive Disorder with generalized anxiety symptoms. Catherine has not had any treatment for this previously.

Louisa asks for Catherine's permission to involve her parents. Catherine very reluctantly agrees. A meeting is arranged with the school psychologist and Catherine's mother and father over the next few days. At this meeting it is agreed that Catherine will be referred to an external psychologist under a mental health plan fashioned by the general practitioner. There is a list of external psychologists who have previously worked well with the school. The parents agreed to see the GP for Catherine to be reviewed for possible antidepressant medication and to obtain a referral to a private, external psychologist. It is agreed that the external psychologist will be responsible for case management, individual therapy and fashioning a safety plan that will be provided to the school, Catherine and the parents. Louisa will continue to see Catherine for weekly mental state examination, review of her risk and liaise with the external psychologist. It is agreed that the parents will meet with Louisa in 1 month to review how things are developing. It is agreed that if Catherine deteriorates, has increased suicidal thoughts or plans, or fails to make progress over the month, then consideration will be given for a referral to be made to a private child psychiatrist or the local Child and Adolescent Mental Health Service (CAMHS).

Test Yourself Quiz

1. James is a 16-year-old adolescent boy. His teacher has referred him to you for an assessment. James' marks have deteriorated over the last 6 months. As a school psychologist, what

questions would you ask to clarify if he has major depressive disorder?
2. Hannah has had lowered mood, inverted sleep, loss of appetite, 5 kg weight loss and suicidal ideas over the last 4 months. What biological and psychological factors should the school psychologist considered in the aetiology of Hannah's major depressive disorder?
3. Ariella is an irritable 15-year-old girl who has poor concentration, and cries frequently. She has no other symptoms of depression. What therapeutic options can you list for the treatment of her minor depression?
4. Stephanie is 9 years old and suffers with 9 DSM-5 symptoms of major depressive disorder. What therapeutic options can you list for the treatment of children with major depression?
5. What are the common side effects of Selective Serotonin Reuptake Inhibitors?

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Understanding and Responding to Suicidality in the School Setting

Christopher Gostelow, Scott Poland, Stephanie Guedj, and Yaël Seth

Introduction

Suicide is an issue that impacts all regions of the world and all age groups. In Australia, suicide was the leading cause of death for children aged between 5 and 17 years in 2014 (Australian Bureau of Statistics [ABS], 2016a). Work in suicide prevention is challenging, demanding and at times extremely distressing. When effective, this work saves and genuinely changes the lives of children, young people and their families. However, dealing with the consequences of a student suicide is professionally and personally challenging, especially given the profound and dramatic affect on the lives of the student's family and friends and on other students, school staff and the wider community.

Suicidal behaviour is best viewed from a broader psychological health and well-being perspective rather than from a specifically mental ill health perspective. However, there are multiple causes of suicidal behaviour, including biological, psychological, social, environmental and cultural factors according to the World Health Organization (WHO, 2014).

This chapter provides a practical overview of the identification of and interventions for students with suicidal behaviour as well as the role school psychologists serve following the death of a student by suicide. Issues that are integral to the role of a school psychologist such as ethics and self-care are also highlighted. Throughout the chapter, information has been provided on how to access further information, allowing for the development of a greater understanding in the area of suicide prevention.

Rationale for Schools Involvement in Suicide Prevention

Schools should strive to maintain a safe and supportive environment where student mental health and well-being is considered a priority and students feel comfortable sharing concerns. This type of environment would not only enhance social–emotional development but it would also serve to optimise learning outcomes (Durlack, Weissberg, Dymnicki, Taylor, & Schellinger, 2011). The actions a school takes in this regard serve as resilience building and preventative. Prevention of youth suicide can thus be addressed where students spend a significant part of their

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day—at school. "Schools are an ideal environment in which to deliver interventions that may lower the risk of suicide later" (Christiansen & Petrie, 2013, p. 472).

Schools are excellent places for monitoring changes in individual student well-being, identifying emerging problems and partnering with parents/guardians and inter-agency colleagues to provide support. It is beneficial for school staff to be familiar with risk factors and warning signs and aware of referral pathways within school and external to school. School psychologists have the necessary skills to raise this awareness, and thus serve a significant role in suicide prevention within schools.

When a suicide occurs, schools are ideally placed to provide support to all those affected and protect the well-being of students and staff. A death by suicide can impact the entire school community, affecting mental health, behaviour, learning and attendance of those who are left behind. School responses provide opportunity for positive modelling of strategies for coping with adverse life events. All schools need to have access to a school psychologist and/or other specialist who has expertise in suicide assessment, intervention and postvention.

The Role of the School Psychologist in Suicide Prevention

As mental health professionals, school psychologists have a vital role to play in supporting schools with suicide prevention. This role encompasses proactive and preventative work as well as responsive, and at times reactive work. School psychologists' skills in consultation, assessment, intervention and collaborative interdisciplinary/inter-agency approaches at the individual, group and whole school level make them pivotal professionals. Whilst students are frequently reluctant to seek professional mental health support, they consider the school counsellor (psychologist) the most likely person to be helpful (Robinson et al., 2013).

All school psychologists would benefit from accredited training and skills development in suicide prevention. School psychologists need to have appropriate knowledge and competence in suicide risk assessment, intervention and postvention. However, the reality is that no matter how professional and competent a school psychologist is (due to factors beyond their control), no intervention can totally prevent every student from engaging in or potentially dying from suicidal behaviour.

Definitions and Terminology

There are a number of suicide-related behaviours, sometimes referred to in the literature as Suicidal Thoughts and Behaviours (STB). **Suicide** is the act of intentionally killing oneself (White, 2013). **Suicide attempt** (SA) is, "a non-fatal, self-inflicted potentially injurious behaviour with any intent to die as a result" (Crosby, 2007, as cited in Robinson et al., 2013, p. 164). **Suicide ideation** (SI) is, "thoughts of engaging in behaviour intended to end one's life" (Nock et al., 2008, p. 134).

Suicide contagion is the process whereby one person's suicide influences another person to engage in suicidal behaviour. A **suicide cluster** is, "a group of suicides or acts of deliberate self-harm (or both), that occur closer together in time and space than would normally be expected on the basis of statistical prediction and/or community expectation" (Commonwealth of Australia, 2012, p. 1).

Non-suicidal Self-Injury

Non-suicidal Self-Injury (NSSI) is, "direct and deliberate destruction of body tissue in the absence of any observable intent to die (e.g. cutting and burning)" (Tuisku et al., 2014, p. 313). This behaviour most commonly occurs in adolescents and young adults (Swannell, Martin, Page, Hasking, & St John, 2014). With a lifetime prevalence of 28 % (Brunner et al., 2014) it is more common than suicidal behaviour. NSSI is related to emotional regulation, depression and anxiety and is a strong risk factor for later sui-

cide attempt (Whitlock et al., 2012). Whitlock et al. (2012) refer to NSSI as a "gateway" behaviour for future suicide; it may reduce inhibition through habituation to self-injury, thus increasing acquired capability for suicidal behaviour. More information on NSSI management, assessment and treatment for school psychologists is available from Heath and Lewis (2013), Joiner, Ribeiro, and Silva (2012) and Walsh and Muehlenkamp (2013).

Key Concepts and Language

In our experiences, there are several key concepts school psychologists and all educators and mental health professionals would benefit from keeping in mind:

- Every suicide is a tragedy
- Suicide can have a tragic short- and long-term impact on individuals and school communities
- Suicide is preventable (but no matter what is done some individuals will die by suicide)
- There is no single explanation of why people die by suicide
- There are some common risk factors and warning signs
- There are many myths about suicidal behaviour
- Inter-agency approaches are important in dealing with suicidal behaviour
- The absence of evidence of risk is not evidence of absence of risk

The language we use affects perceptions of suicidal behaviour. Some terms can be judgemental, alienating or stigmatising. The Mindframe resources (Hunter Institute of Mental Health, 2014), including their media app, recommends ways to report suicide death, including consideration of whether to report, the prominence of the story, information to include/not include, and cultural sensitivity. In particular, they suggest appropriate language and identify problematic language. See Table 1 below.

Table 1 Recommended terminology for suicide reporting

Problematic	Preferred
"Successful/ unsuccessful suicide"	"Took their own life", "died by suicide", "ended their own life"
"Committed/commit suicide"	
"Failed suicide"	"Made an attempt on his/her life"
	"Suicide attempt" "non-fatal attempt"
"Suicide epidemic"	"Higher rates" "increasing rates"
	"Concerning rates"
"Suicide mission" "Political suicide"	Refrain from using the term suicide out of context

Adapted from Hunter Institute of Mental Health (2014). Reporting suicide and mental Illness: A Mindframe resource for media professionals. Newcastle NSW Australia. P.13

Understanding Suicide

Suicide is a complex and difficult issue and often raises the question, why do people die by suicide? As a school psychologist, it is vital to access training and research that assists in developing an understanding of why people, especially young people, may take their own life. There is no single factor that leads an individual to suicide. Multiple variables, including individual, social and contextual factors, can place a person at risk of suicide (Ministerial Council for Suicide Prevention [MCSP], 2014). The Interpersonal Theory of Suicide (Van Orden et al., 2010) assists in understanding suicidal behaviour in all age groups.

The Interpersonal Theory of Suicide (Van Orden et al., 2010) builds on earlier theoretical models and suggests that people die by suicide when they have both the desire to die and the ability to die. According to this theory, there are three factors involved—thwarted belongingness (I am alone), perceived burdensomeness (I am a burden) and an acquired capability for suicide (I am not afraid to die). The first two are belief sets that a person has developed in a social context whereas the capability is developed through habituation to fear and pain and allows the person to override the instinct to live.

Statistical Information About Suicide

The Australian Bureau of Statistics (2016a[1]) reports that in the 5 year period between 2010 and 2014, there were 1687 deaths (10.9 per 100,000) of young people aged 15–24 and 88 deaths (0.6 per 100,000) by suicide of children aged 5–14. In 2014, suicide was the leading cause of all deaths for children aged between 5 and 17 years in Australia. The age-specific rate for this age group in 2014 was 2.3 per 100 000. (ABS, 2016a).

According to the WHO (2014), an estimated 804,000 people (11.4 per 100,000) died by suicide in 2012. In Australia, there were 2535 deaths (11.2 per 100,000) in the same time period (ABS, 2014). In 2014, the number of suicide deaths in Australia was 2864 (12.0 per 100,000) (ABS, 2016b) which is equivalent to approximately 8 Australians dying by suicide every day. It was the 13th leading cause of all deaths (ABS, 2016b).

In 2014, the most common method of suicide in Australia was hanging, strangulation and suffocation. This accounted for over half (56.3%) of all suicides, followed by poisoning by drugs (15.4%), poisoning by other methods (6.6%) and firearms (6.2%) (ABS, 2016c). Globally, ingestion of pesticide, hanging and firearms are the most common methods (WHO, 2014).

Risk Factors, Warning Signs and Precipitating Events

Risk factors refer to an individual's characteristics, circumstances, history and experiences that raise the statistical risk for suicide. *Warning signs* are visible signs that a person may show that indicate they may be in crisis and thinking about suicide. While some suicides occur without warning, 50–75 % of people who are suicidal give some warning of their intentions (American Foundation for Suicide Prevention, 2006). *Precipitating events* are those events that create an imminent risk in a person who also has chronic risk factors. We can prevent suicide by learning to recognise the signs of someone at risk, taking those signs seriously, and knowing how to respond to them. However, it must be remembered that most people who may be categorised as at risk will not end up taking their own life. Further, some people who attempt suicide have strong protective factors and few risk factors (Erbacher, Singer, & Poland, 2014).

According to Miller (2011), a history of suicidal behaviour and the presence of at least one mental health disorder are the two most prominent risk factors for young people. Recent research has highlighted that hopelessness predicts suicide ideation and that self-injury/NSSI is the most important risk factor in determining which young people may go onto attempt suicide (Taliaferro & Muehlenkamp, 2013). Further, Miranda, Ortin, Scott, and Shaffer (2014) showed that the more serious, the more frequent and the longer the suicide ideation went for, the more likely it was that a young person would progress to suicide attempt.

The following lists in Table 2 below are adapted from the extensive research published by Huguet, Kaplan, and McFarland (2014), the Centre for Diseases Control (CDC, 2012), Substance Abuse and Mental Health Services Administration (SAMHSA, 2012) and White (2013).

Protective Factors

The presence of protective factors can lessen the potential of risk factors leading to suicidal behaviour (Lieberman, Poland, & Kornfeld, 2014). Protective factors are often the opposite of risk factors and can buffer the effects of risk. Students who possess multiple protective factors and are able to bounce back in the face of adversity are often said to have resiliency (Lieberman et al., 2014). Once a child or adolescent is considered at risk, schools, families and friends should work to help the young person build social connections

[1]Please note that the ABS states that caution needs to be taken when interpreting statistics associated with suicide deaths. Please see ABS Explanatory Notes for further information.

Table 2 Risk factors, warning signs and precipitating events

Risk factors	Warning signs	Precipitating events
Individual factors	• Hopelessness about the future getting better; feeling trapped	• Relationship ending
• Previous suicide attempt and/or NSSI	• No sense of purpose in life or reason for living	• Argument at home
• A diagnosable and *treatable* mental illness (e.g. depression, bipolar disorder; personality disorder)	• Feelings of being a burden to others	• Death or suicide of a relative or friend
• Hopelessness	• Withdrawing from family, friends and community	• Loss of status or respect
• Persistent and enduring suicidal thoughts	• Depression, overwhelming sadness	• Major physical illness or injury
• Poor coping skills	• Increased alcohol and/or substance use	• An incident of bullying or abuse
• Low self-concept/esteem	• Loss of energy or extreme fatigue	
• Alcohol or substance dependence/ misuse	• Loss of interest or pleasure in usual activities or sports	
• Impulsivity and/or risk taking behaviours	• Discussion or references to suicide/ death (e.g. in writing or in jokes)	
• Aggression	• Suicidal threats (direct and/or indirect)	
• Social isolation or alienation	• Seeking suicide means, such as rope or guns	
• Lack of engagement with or connection to school (e.g. poor attendance)	• Trouble concentrating or thinking quickly, indecisiveness	
• Family history of mental illness or suicide	• Preoccupation with suicide/death in music, comics, movies, books, etc.	
Social/environmental/life factors	• Researching methods or watching suicide/self-harm documentaries	
• Family dysfunction, discord and/or impaired relationships	• Increased hostility, agitation, defensiveness, anger, or rage (may be hostile if afraid you will uncover their suicide plan)	
• History of childhood neglect, physical or sexual abuse	• Disinterest in making future plans (I won't be here this weekend anyway)	
• Childhood trauma or witnessing trauma	• Dramatic mood changes (e.g. euphoria that becomes calm)	
• Isolation or lack of connectedness	• Increased anxiety and/or agitation	
• Access to alcohol or illicit drugs	• Deterioration of self-care: neglect of personal appearance or cleanliness	
• Easy access to lethal methods	• Decreased school attendance, academic performance and/or behaviour	
• Exposure to suicidal behaviour in others	• Change in eating habits (weight loss/ gain) and/or sleep patterns	
• Bullying	• Increased impulsivity and risk taking	

and other social and environmental supports. However, the presence of protective factors does not cancel out risk factors. The following protective factors listed in Table 3 below are adapted from *Preventing Suicide: A Toolkit for High Schools* (SAMHSA, 2012).

Prevention

Suicide prevention is any effort to reduce suicidal ideation, suicide attempt and death by suicide (Erbacher et al., 2014). Because there is no single cause of suicide and no group of people is

Table 3 Protective factors

Protective factors	
Individual factors	• Positive self-esteem and emotional wellness
	• Physical health
	• Hope for the future
	• Willingness to obtain and stay in treatment
	• Easy access to effective mental health support/care
	• Cognitive flexibility (ability to integrate and think through new information)
	• Internal locus of control (feeling as if one has the power to create change)
	• Effective coping strategies
	• Effective problem-solving skills in the face of conflict or adversity
	• Cultural and religious beliefs that affirm life and discourage suicide
	• Resilience and trust that things will get better
	• General life satisfaction, sense of purpose
Social, environmental and life factors	• Sense of connectedness: having social supports such as family, friends, teammates
	• Having at least one caring adult to which a student can turn
	• Feeling connected to school and feeling safe there
	• Connections within the community such as strong spiritual or religious ties
	• Restricted access to alcohol or illicit drugs
	• Restricted access to suicide means, such as guns, medications, etc.

immune to suicide, prevention efforts target factors that have been shown to contribute to the development of suicidal behaviour. Some prevention efforts do not have an explicit focus on suicide but address factors that increase the risk for suicide, such as depression, substance use and parent–child conflict.

Universal suicide prevention approaches include:

- **Mental health promotion** programs. Evidence-based social–emotional and well-being programs can be introduced for a whole school population or certain year groups. MindMatters (National MindMatters Project, 2014) and KidsMatter (National KidsMatter Project, 2014) are Australian, evidence-based approaches and processes to support school decision making on programs.
- **Screening programs** for students (in a year group or school) mostly involve easily administered, brief, self-report tools that may measure depression, thoughts of suicide and attempts, anxiety and substance use (Aseltine, James, Schilling, & Glanovsky, 2007). Those who score highly are followed up to assess their risk level. Screening programs have been shown to have no iatrogenic risks. However, there are workload, resource and ethical obligations (e.g., the need to make appropriate referrals for youth identified as at-risk) for schools to consider in adopting this approach. The variability of suicide risk over time and cultural factors are also concerns with screening. Further, programs like Signs of Suicide (Aseltine et al., 2007) do not currently come with Australian audio-visual material. School-based peer support and screening is recommended by Suicide Prevention Australia (SPA, 2014).
- **Increasing student awareness of suicide risk behaviours, risk factors and warning signs** of suicide in themselves and others and in help-seeking behaviours (e.g. "More Than Sad" http://www.morethansad.org/abouttd.html). The Australian Teen Mental Health First Aid (TMHFA) program (Hart, Kelly, Kitchener, & Jorm, 2012) serves this purpose. Schools utilising this approach must already have staff who have undertaken Youth Mental Health First Aid (YMHFA) training. This training assists adults in supporting young people who may have or be developing a mental health problem (Kelly, Kitchener, & Jorm, 2013).

It is important to consider some of the regular school practices as contributing towards suicide prevention. This can include processes for pastoral care, promoting positive behaviour management, countering bullying and procedures for managing student attendance (Ombudsman Western Australia, 2014).

Selective prevention programs target people who are at risk of a certain behaviour and those who are likely to have contact with them. Examples include:

- **Training** school staff and parents to recognise warning signs of suicide, take immediate action and make appropriate, timely referrals (e.g. Question, Persuade and Refer) (QPR) (Wyman et al., 2008); Applied Suicide Intervention Skills Training (ASIST) (Lang, Ramsay, Tanney, & Kinzel 2007) and the MCSP Gatekeeper Suicide Prevention Program (2014). Gatekeeper training programs for schools are recommended by SPA (2014).
- **Support groups** for children identified as having social and emotional risk (e.g., due to life circumstances). The purpose of these groups is not simply to bring these children together but to reduce the risk that these children will develop specific problems, such as suicidal ideation or depression, in the future.

Indicated prevention involves taking appropriate intervention actions and implementing risk management and case management processes with individuals identified as having significant risk of suicidal behaviour. One of the most powerful strategies for prevention is removal of access to the means and opportunity. See "Intervention" below.

Evaluating the effectiveness of suicide prevention programs is challenging for a number of reasons (Klimes-Dugan, Klingbeil, and Meller, 2013). The most obvious way to see if a suicide prevention program is working is to measure whether it has prevented any deaths by suicide, but this is almost impossible. Suicide is a low base rate behaviour, meaning that it rarely happens. Because it is a rare event, it is hard to establish causation. Statistically, it is impossible to demonstrate that a suicide prevention program saved lives because there is no way to measure what *could* have happened. Because of this, most suicide prevention programs are not evaluated based on reductions in deaths by suicide or even reduced suicidal behaviour. Instead, they are evaluated on outcomes such as whether students report increased knowledge of suicide warning signs or help-seeking behaviour or whether adults report increased knowledge of how to identify, assess and refer suicidal students (Erbacher et al., 2014).

Intervention

Assessing suicide risk. From our experience, young people with suicidal behaviour are often identified in school settings. Direct disclosure by a student of suicidal thoughts and feelings may occur but it may be indirect when a fellow student, parent or community member brings concerns about a student to the attention of staff. Schools are in the trusted position of being able to make an initial assessment, take immediate intervention actions to ensure safety, provide support and make a referral. The school psychologist is frequently called on to undertake this work, often at short notice.

The school psychologist needs to reprioritise tasks and work to quickly engage with and tune into the needs of the student. Ready access is needed to template documents—Mental Status Examination, Suicide Risk Assessment, Risk Management Plan and Safety Plan. Contact details for collegiate consultation need to be at hand.

Assessing suicide risk is a process that can be ongoing, dynamic and is a point in time snapshot. Due to this, a single risk assessment should not be relied upon to predict future risk of suicidal behaviour. The Self-harm: longer-term management guidelines by the National Institute for Health and Care Excellence (2011, Risk assessment tools and scales section, 1.3.11) state "Do not use risk assessment tools and scales to predict future suicide or repetition of self-harm." A psychosocial assessment will allow the flexibility to interactively enquire into risk factors (chronic and

acute), warning signs (usually observable signs of near term risk), protective factors and client needs. It is useful to consider the term "risk formulation" rather than risk assessment as posited by Berman and Silverman (2014). With risk assessment, it is important to remember that absence of evidence of risk is not evidence of absence of risk. It is better to assume the risk is at least moderate rather than to discount risk in an individual.

The key principles for assessment of risk in youth outlined by White (2013) are very useful for the school psychologist to consider:

1. To find out if suicide is a concern, we need to ask individuals directly.
2. It is not possible to predict individual suicides but we can estimate risk levels based on a thorough assessment.
3. Approaches to assessing risk need to be developmentally appropriate and matched to the age and cognitive understanding of the child or youth.
4. The perspectives of parents, caregivers and other sources of collateral information should be actively sought out.
5. Risk assessment requires an active consideration of chronic and acute risk factors and protective factors.
6. In general, the greater the level of suicide intent and symptom severity, the higher the potential risk.
7. Risk status should be re-evaluated on a periodic basis.
8. Treatment and risk management plans should correspond to the level of assessed risk.
9. Document all clinical decisions and treatment plans.
10. A strong therapeutic rapport provides the foundation for all subsequent therapeutic work. (White, 2013, p. 61).

Intervening With a Potentially Suicidal Student

Lower risk. Students who are at lower risk for suicide report passing suicidal ideation, no intent and no plan (Erbacher et al., 2014). Following assessment by a mental health professional, they are considered safe to stay in school, continue with existing mental health treatment and able to participate in on-going extra-curricular activities (Erbacher et al., 2014).

What to do. Create a Safety Plan with the student. Notify parents of your assessment and recommend that they make an appointment with an outpatient mental health professional (if the student is not already connected with one). The student should be monitored closely at school and staff should be made alert to any precipitating event or risk that could cause their suicide risk to increase. If this is the student's first experience with suicide ideation, there is an important window of opportunity to address whatever issues are contributing to the suicide risk. For primary school-aged students experiencing their first suicidal ideation, getting connected with mental health services is essential. This might involve convincing the adults in the child's life that his or her suicidal ideation should be taken seriously. Many adults find it hard to believe that young children could be serious when making suicidal statements. However, research has found that young children who report *even passing* suicidal ideation report more serious problems over the long-term than middle school and high school youth who report more frequent and enduring suicidal ideation (Steinhausen & Metzke, 2004).

A final reason why it is so important to connect students at lower risk of suicide with mental health services and other supports is to prevent them from becoming moderate or high-risk youth. Recent research has suggested that the average length of time between first suicidal ideation and first suicide attempt in adolescents is less than 1 year (Nock et al., 2013). However, not all youth who report suicidal ideation will go on to make an attempt. Parental awareness and monitoring is important.

What not to do. Suspending a student from school until an external professional assessment determines that the student is not at risk of suicide punishes the student for being honest about suicide risk and places the burden of monitoring on the parent/guardian, who in all likelihood is

not a trained professional. The relationship and planning between the school, parent/guardian and relevant agencies will ideally be collaborative and considerate of support requirements at school, home and during school holiday periods.

Moderate risk. A student with frequent suicidal ideation of limited intensity and duration and some specific plans to kill themselves, but no reported intent is considered to be at moderate risk (Erbacher et al., 2014). A student at moderate risk will demonstrate good self-control, some risk factors and be able to identify reasons for living and other protective factors.

What to do. Such students present the most challenging management issues for professionals. Students who are at moderate risk for suicide benefit from regular re-evaluation of suicide risk to identify increased or decreased risk. Develop a Safety Plan with the student and the parent/guardian (if possible), and include the number for the local 24-h crisis service. The written Safety Plan needs to be customised for the student and allow recognition of warning signs, internal and external coping strategies, social supports, specific professional help and elimination or limiting the access to the means. Copies need to be provided to the student, parent/guardian and to relevant school staff. The Safety Plan is different to the No-suicide Contract strategy, which was a non-evidence based written or verbal agreement that the student promised not to suicide (Stanley & Brown, 2012).

If the student is not in outpatient treatment, they should be connected immediately with someone who has experience working with suicidal young people. If the student is participating in outpatient therapy, the frequency and intensity of treatment should be increased until the suicide risk is assessed to be significantly lower. A designated school staff member should maintain close contact with the student, their parent/guardian(s) and the service provider.

High risk. If a student has active ideation, a desire to die, a specific plan, access to the means and few or no reasons for living the student is considered to be at high risk and needs to be assessed for hospitalisation (Erbacher et al., 2014). Although there are no data to support the idea that hospitalisation is an effective intervention against suicide, most communities do not have the resources or treatments available to maintain high-risk young people safely (Erbacher et al., 2014). The specific steps to take with this student are:

1. Supervise the student at all times while in the building (including bathrooms).
2. Contact the parent/guardian(s).
3. Contact/coordinate with the service that provides crisis suicide risk assessments and liaises with the local hospital.
4. Call the hospital directly and alert them of an incoming assessment.
5. Arrange for transportation to the hospital.
   (a) The student should only be released to a parent/guardian who has agreed to take the student either to the appropriate service or hospital.
   (b) If the parent/guardian will not agree, then the child should be transported only by police, ambulance or, if safe to do so, by school personnel.

Following a suicide attempt, schools need to work with the student, parent/guardian and relevant agencies to plan for a return to school. The school psychologist can be an integral part of this planning process. Planning would need to consider managing future risk, intrapersonal issues, peer variables and educational needs.

Case Study

Simon is 16 and attends a large secondary school. A fellow student from the same year group is suspected to have died by suicide 2 weeks ago. Simon enrolled at the school for the start of this year (8 weeks ago) and has previously attended two other secondary schools. A teacher, with whom he gets along well, referred him to see you, the school psychologist for the school, after she discovered a note that he had written to a friend; the note stated he wanted to kill himself. You have just met Simon and established a rapport with him; you discussed confidentiality limi-

tations at the outset. Simon presents as having low affect and tells you he has recently moved from living with his mother, due to her drug use and NSSI problems, to living with his father, step mother (with who he has conflict) and step siblings. He has concern his mother will die from a drug overdose like his older brother did but has given up on being able to do anything more for her after she rejected him and said she, "loathes him and never wants to see him ever again." He initially denies any suicide risk.

As the school psychologist, you need to assess safety and the risk of suicide. In the process, a Mental Status Examination is best undertaken. Exploring Simon's present thoughts, emotions and the concerns that led to the referral will allow initial identification of suicide risk factors and warning signs. This can then be further explored through questioning about suicide plans (e.g. intent, method, access to the means, timing and likelihood of being saved), depression, hopelessness and previous suicidal behaviour (including specifics about the duration and pervasiveness of ideation and details of any past attempts). Previous alcohol and drug use, exposure, family and personal mental illness, coping skills factors can be discussed. Precipitating events (e.g. relationship breakdown, recent losses, illness, bullying or abuse) need exploration. Protective factors (social support, hopefulness, internal locus of control, sense of control and reasons for living) need to also be assessed. The assessment will enable you to make judgements about Simon's level of suicide risk.

Assessment of a suicide risk will require collaboration within the school (e.g. principal or their delegate and Student Services personnel) and consultation with a suitable professional colleague to seek their opinion on risk and appropriate actions is essential. Simon needs to be made aware of your concerns and the need for you to act by advising his family, especially if a moderate to high risk is ascertained. His father needs to be advised of the level of concern and the need for further action; Simon may be able to be with you when this contact is made. A moderate risk may be managed by development of a Safety Plan (which may address triggers and warning signs, coping strategies, activities that provide distractions, support people {both personal and professional}, strategies to make the environment safe and emergency contact numbers) with Simon and his father; this will clarify in writing how Simon will remain safe in the event of suicidal ideation in the future. Referral for further assessment and counselling will need to take place. If the level of risk was judged to be high and potentially imminent, then a member of staff needs to remain with Simon at all times until he is collected from school by his father. Action is needed to restrict access to means of suicide until assessment at a hospital or acute service is undertaken, preferably on the same day.

You will need to maintain suitable records of your assessment, consultations, decision making and actions taken. Follow-up with the father and processes for managing risk at school will also need to be instigated, as appropriate.

Postvention

Suicide has a significant impact on the whole school community. Poland, Samuel-Barrett, and Waguespack (2014) outlined the following key questions to estimate the amount of potential emotionality following the death of a member of the school community:

- Who was the person?
- What happened to them?
- Where did the death occur?
- What other tragic losses has the school experienced?

Postvention focuses on supporting staff, students and the school community to manage a suicide, thus reducing potential negative consequences such as contagion. An effective postvention response will, "identify youth at potential risk, reduce risks for imitative suicidal behaviour and subsequent mental health problems, and facilitate expressions of grief" (White, 2013, p. 75). The school psychologist has an integral role in supporting school staff with postvention,

both prior to and after a suicide has occurred. The role of the school psychologist in postvention may include:

- Consulting with school leadership staff in responding to a suicide.
- Educating the school community of the potential impact of a suicide.
- Supporting the school community by providing information and advice on accessing services.
- Liaising with regional personnel and external agencies to obtain additional support for the school following a suicide.
- Providing direct services to students and consultation to parents/guardians.
- Providing staff with information about their support options (e.g. Employee Assistance Program).

School psychologists can also assist schools in the development of policies and procedures for managing a suicide **prior** to it occurring. Policy and procedures should include information on responding to suicide in a timely, effective and appropriate way as well as outline key roles and responsibilities of staff. The school response following a suicide will vary depending on the level of impact and the support needs of the school community. Key elements to consider in postvention are:

Emergency Management Team. Schools will ideally have an identified team in the school and use crisis drills (Poland, 1997; Pitcher & Poland, 1992). As a mental health professional, it is important that the school psychologist is a member of this team. Upon hearing of a death, the principal should activate the team, meeting face to face if possible, to plan for the following days. This includes arranging a staff meeting as soon as possible to share facts and prepare teachers and staff to deal with students' and parents' issues, questions, concerns and reactions.

Emergency and Critical Incident Management (ECIM) Plan. All schools would benefit from developing a customised ECIM plan that is built on an approach that considers Prevention, Preparedness, Response and Recovery. A plan will enable prompt actions to ensure safety, leadership, intervention based on assessed needs and inter-agency coordination. A plan proves invaluable in the management of death by suicide, especially when specific considerations for a suspected suicide death are incorporated.

Verification. In Australia, a Coroner is the only one who can confirm that the cause of death is suicide. This determination can take 2 or more years. Language used prior to this determination may include phrases such as "suspected suicide", "believed to by suicide" or "sudden death". Information of a suspected suicide may come to hand from a variety of sources; however, this terminology should only be used once the school/region/system has obtained verification from reliable and, if possible, multiple sources. Sources include the family, police, principal and systems can sometimes obtain preliminary information from the Coroner's Office. The school may get family verification when the principal contacts the family to pass on condolences and offer assistance. Once a suspected suicide has been verified, and following consultation with the family, share appropriate facts (do not reveal information about the method used or location) with the school community to dispel further rumours and ease questioning.

There are times when a cause of death is unknown. In this case, schools can state that the cause has not yet been determined and they will share information once known. It is important to acknowledge a death as a suspected suicide if verified; it is equally vital to avoid the term suspected suicide unless this is verified; getting it wrong is stigmatising to the family and difficult to undo.

Respect family privacy. We must respect the privacy of the family if they do not want information about the cause of death disclosed. If the family is hesitant to disclose the cause, a staff member with a good relationship with the family should contact the family and discuss this further, preferably visiting the family in

person. The school psychologist may support this staff member by providing appropriate advice and information on the need to make enough time available, the need to listen, possible family reactions and how the staff member will cope with their own reactions. The family may change their perspective once it is gently explained that students are already talking about the cause of death amongst themselves and having adults in the school community talk to students about suicide and its causes can help keep students safe.

Notification. A suicide must be recognised and acknowledged. Appropriate information regarding the death should be disseminated to staff, students and parents as soon as possible.

- ***Staff*:** Staff should be informed as soon as possible after the death has been verified. Hold a staff meeting to share information about the suicide death, allow teachers to express their own reactions and concerns, plan for the day and introduce any additional support personnel. The administration should recognise that teachers may be grieving, allow them breaks from their classrooms and offer counselling support to them as well. Provide staff with a statement to read to their students and provide fact sheets with anticipated reactions from students and key phrases for how to respond. Remind all staff of the important role they play in identifying changes in behaviour among the students they know and see every day, and ensure they know how to refer these students for counselling support.
- ***Students*:** Young people often feel that adults keep secrets from them, so share accurate information quickly. Notifying students of the death personally, holding classroom meetings and offering safe room support are important because students sometimes feel the deceased was erased by the school and not to be spoken of and remembered. Any siblings, family, or very close friends of the deceased should be notified of the death individually; how a child hears about a suicide death can have a profound impact on the resultant response of the child (Hart, 2012). Stay calm and collected as adult reactions greatly impact children's understanding of how threatening a crisis event truly is (Brock, 2012). For the remainder of the student body, their classroom teacher should read a death notification statement. Students should be provided with this formal announcement from school staff as soon as possible as they are most likely becoming aware of the incident via online social media sites faster than staff can formally distribute the news.
- ***Parent/guardian(s)*:** It is important that a letter be sent home providing information on the death as well as how caregivers can talk to their child about it. In the age of technology, letters are often emailed to parents as well as posted on the school website. Paper copies are still recommended, however, as we cannot assume all families have the technology or ability to access materials electronically.

Identification. Although staff can never quite tell which students will suffer emotionally in response to a traumatic event, it is important to identify, monitor and follow-up with students who may be at risk. The school psychologist can assist the school in identifying individuals and groups of students that may be vulnerable. Students who present with one or more of the following are at particularly increased risk.

1. *Geographical proximity.* This refers to how close students were to the actual event. This will include students who witnessed the suicide or found the body.
2. *Psychosocial proximity.* This refers to how well a student knew the deceased. This may include close friends, neighbours and family members, the last person to talk to the deceased, and students on teams or in clubs with the deceased. It may also include students who were estranged, had a fight with the deceased, who express guilt that they should have seen the signs that their friend was suicidal or somebody who was not a friend but identified with the deceased.

3. *Populations at risk.* This refers to risk factors (internal or external vulnerabilities) a student presents with at the time of the crisis that influence how they cope with difficult situations. Internal vulnerabilities may include poor coping or problem-solving strategies, a history of mental illness or suicidal ideation, or a history of trauma or loss. External vulnerabilities relate to students' lacking social supports.
4. *Threat perceptions.* This refers to students perceiving the event to be extremely negative and highly threatening, such as students who felt their own lives may have been at risk (Erbacher et al., 2014).

Media. Prior to the school communicating with media they should liaise with their organisation's media team for advice and support. Schools/regions should be prepared for contact from local media in the event of a suicide, particularly if the deceased student was a popular athlete or otherwise well known in the community. Determine ahead of time who will take such calls as it is best if this media contact has knowledge of suicide and resources for help. For a high profile suicide, a central-based media liaison person will likely handle media requests, although in most cases it is the principal who will speak with the media.

Social media. Following a suicide, schools can strategically use social media to dispel rumours, communicate facts about the death and provide information on grief or mental illness, using the forum to educate the community. Work with students to identify which social networking sites are being used, and disseminate information about warning signs of suicide and safe messages that emphasise suicide prevention to minimise the risk of suicide contagion. As students will inevitably post messages after a suicide, school staff can provide students with specific language that is appropriate to distribute (Flitsch, Magnesi, & Brock, 2012). Information on resources where students can get help in school or in the community can be posted on sites. Through monitoring social media posts, comments and blogs schools can identify students who need further support. Such… students may post distressing comments (e.g. "I have no reason to go on anymore…."). The Department of Education in Western Australia has developed guidelines that assist schools in managing social media following a suspected student suicide, including information on other resources that are available to support schools in this area. This guideline is part of the Department of Education's School Response and Planning Guidelines for Students with Suicidal Behaviour and Non-Suicidal Self-Injury. (Department of Education, Western Australia, 2016).

Issues concerning contagion. Hart's (2012) goal of preventing contagion is important as it has shown that knowing someone who has died by suicide increases the risk that an individual will attempt suicide, particularly for adolescents. Youth at particular risk for contagion often have pre-existing risk factors (e.g. psychopathology or previous losses), often they know the deceased but were not best friends with him or her (Brent et al., 1989), but as Swanson and Colman (2013) found, suicide death of any schoolmate is a predictor of suicidal behaviour. American research by Abrutyn and Mueller (2014) provides important information regarding contagion among adolescents:

1. Suicide attempts made by friends and family do indeed trigger the development of suicidal thoughts and sometimes attempts in adolescents.
2. The effects last at least a year and up to six years, and possibly longer for girls.
3. When exposed to a suicide attempt, girls are more susceptible to developing both suicidal thoughts and attempting whereas boys may develop thoughts (but not attempt).
4. Peers continue to have a greater influence than family for both boys and girls, though girls may also be susceptible to contagion when a family member attempts suicide.

Overall, this study suggests that danger of contagion as exposure to the suicidal behaviour of others, "may teach individuals new ways to deal with emotional distress, namely by becoming suicidal" (Abrutyn & Mueller, 2014, p. 211).

If a suicide cluster has begun to evolve, Cox et al. (2012) identify six main postvention containment strategies for schools to use:

1. Developing a community response plan
2. Offering educational/psychological debriefings
3. Providing both individual and group counselling to affected peers
4. Screening high-risk individuals
5. Reporting the suicide cluster responsibly in the media and
6. Promoting long-term health recovery within the community to prevent further suicides

Debriefing and ongoing management. It is advisable to have an all-staff debriefing meeting at the end of the first day. This meeting provides an opportunity to offer verbal appreciation to the staff, allow reflection and sharing, disseminate any further information and discuss ongoing support needs for students, staff and parents/caregivers. The school psychologist may consult with the principal about this meeting and present to staff. Staff need to be reminded that counselling is available through their Employee Assistance Program.

Further planning by the Emergency Management Team to manage the ongoing impact of the suicide will also need to occur. The long-term postvention strategies initiated in the aftermath of a suicide limit the distressing effects and avoid further crises. Many schools have underestimated the impact of the crisis and have not provided long-term follow-up and assistance for those most affected over a period of months or years (Erbacher et al., 2014). It is important to recognise that there can be an anniversary effect to suicide where the survivors might be suicidal on the anniversary of the death or on the birthday of the deceased (Lieberman et al., 2014). Tertiary prevention efforts include providing long-term care, support and assistance to affected personnel and individuals as needed. Self-care is vital for school psychologists (see specific issues section below).

Outlining detailed actions and processes to undertake when a school has been impacted by a suicide is beyond the scope of this chapter. Useful resources for postvention planning include:

- Headspace School Support: Suicide Postvention Toolkit: A guide for secondary schools (Headspace School Headspace School Support, 2012)
- After a Suicide: A toolkit for schools (American Foundation for Suicide Prevention & Suicide Prevention Resource Centre, 2011)
- Suicide Postvention Guidelines: A framework to assist staff in supporting their school communities in responding to suspected, attempted or completed suicide (South Australia Department of Education and Children's Services, Catholic Education South Australia & Association of Independent Schools, 2010).
- Responding to Student Suicide. Support Guidelines for Schools (New South Wales Department of Education, 2015).

Any external resources should be used in conjunction with your organisations existing policies and procedures and in consultation with a mental health professional.

Good Practice for a Statewide School Psychology Service

An effective school psychology service will support school psychologists in suicide prevention through strategies that may well include:

- **Professional Practice Guidelines** for assessing and intervening with students with suicidal behaviours and NSSI. This will include template Risk Management Plan and Safety Plans.
- **Providing ongoing access to Gatekeeper training**. School psychologists need to attend formal training and periodic refresher training sessions to ensure they have up-to-date knowledge of identification, assessment and intervention in the area of suicide prevention.
- **Systemic postvention communication processes**. The ability of school systems to gather

and communicate verified information on a suspected suicide to key personnel and inter-agency partners in a timely and effective way is vital for enabling prompt, synthesised, multi-agency response actions. Pre-established system level verification processes with the police and Coroner's Office are useful. A centrally determined manager may hold a list of the email addresses of key personnel from within and external to their organisation and a set of standardised emails that can be sent out, both during and out of normal work hours, following the suspected suicide. Information may include the date that the young person died, the school and year group, whether social media use is prominent as well as the contact details for the person case managing postvention support. Such a communication process will increase the level of support available to those affected and minimise the risk of contagion.

- **Inter-agency partnership arrangements**. These enable the early identification of and action on emerging issues, common standards of care and awareness of services available.
- **Promotion of the role of school psychologists** in suicide prevention. School psychologists need to proactively promote their skills in prevention, intervention and postvention.

Specific Issues

Ethical issues

Working with suicidal clients raises a number of ethical issues. The Australian Psychological Society (2007) refers to operating within bounds of professional competence. However, regardless of levels of confidence and competence, there is a professional obligation to deal with a client's immediate safety. This involves undertaking an **assessment** of the immediate level of risk and should include a Mental Status Examination, "asking about any previous history of suicidal behaviour and whether he has an actual suicide plan as well as access to the means to do it, and looking for evidence of impulsive behaviour or use of alcohol or drugs" (Australian Psychological Society, 2014b, p. 30). Duty of care obligations associated with working in schools further highlights the need for an assessment.

Consultation with a colleague with competence in the area is essential. Referral to another service provider may occur, but only when immediate safety risks have been managed. This may involve ensuring the student is with someone at all times and/or limited in where they can go until other services are accessed.

The limits to **confidentiality** need to be explained to all clients at the outset. When an immediate and specified suicide risk is determined, parents/guardians need to be informed. This can be enacted in such a way as to explain to the student that you are operating in their best interests and can be limited to information specific to the suicide risk. When abuse or neglect issues are prominent, then alternative contacts will need to be used. With adult students (over 18 years old), the obligation to provide for immediate safety prevails but confidentiality matters may be negotiated according to circumstance.

Record keeping that outlines the actions taken and your professional decision making is vital. In the event that a current or previous client dies by suicide, these records may be called upon for coronial or legal proceedings.

For further information the Ethical guidelines relating to clients at risk of suicide (Australian Psychological Society, 2014a) is an excellent resource.

Legal Issues

Liability for schools with regard to suicide is a complex issue with significant implications for all school staff but especially for administrators, support staff and school psychologists. There have been a number of court cases in the United States where schools were sued following the suicide of a student.

One of the key issues indicated in previous legal cases has been failure to train school staff in

suicide prevention. In 2007, The Jason Flatt Act was passed in the state of Tennessee in the United States, requiring all educators in the state to complete 2 h of youth suicide awareness and prevention training each year in order to be able to be licensed to teach. To date, 12 states in the United States have passed the Jason Flatt Act. The growing trend among the states to incorporate such an act speaks to the value seen in preventative legislation.

The legal issues in the United States highlight the need for Australian schools and school staff to take appropriate steps to implement suicide prevention strategies to support the mental health and well-being of students, staff and the school community.

Culturally and Linguistically Diverse People

School psychologists may well be requested to provide suicide risk assessment, intervention and assist with the management and support arrangements for culturally and linguistically diverse students, including those from a refugee background. The approach taken may need to adapt to sensitively recognise cultural variables unique to the culture. This may, but is not limited to consideration of language and terminology, the meaning and perception of suicide in the specific culture/religion, stigma, previous exposure to suicidal behaviour, the risk and protective factors and relevance of warning signs. Parent/guardian and family perspectives on suicidal behaviour need to be understood as awareness of likely responses will assist in determining the most appropriate method of communicating and intervening with the family and student. For some cultures, suicidal behaviour may be shameful and impact the perception other cultural members may have of the family. Similarly, for some cultures, suicidal behaviour may be attributed to external or spiritual causes. Further, interventions and management actions will need to be considered from a cultural perspective. Consulting with professionals from the same cultural background or elders/leaders, particularly in low incidence cultures, will provide valuable insight and direction for the school psychologist. Culturally appropriate support services may also need to be utilised.

Aboriginal and Torres Strait Islander People

Suicide in indigenous communities has become a significant concern in the international arena (SPA, 2014). As is the case in the United States and Canada, Aboriginal and Torres Strait Islander people have significantly higher suicide rates than non-Aboriginal people. Some areas, for example the Kimberley region of Western Australia, have recognised significant suicidal behaviour problems. In 2014, suicide was the fifth leading cause of death for Aboriginal and Torres Strait Islanders. The age-standardised death rate was approximately twice as high as the non-Aboriginal and Torres Strait Islander rate across both genders (ABS, 2016d).

Aboriginal and Torres Strait Islander people have a strong connection to culture, country and community. Suicidal behaviour was believed to have been rare in pre-colonial times. However, this has changed such that the frequency of and level of exposure to suicidal behaviour and NSSI is comparatively high, bringing with it trauma, stigma and community issues. Cultural issues must be considered in assessment, intervention and postvention. An excellent reference for understanding Aboriginal and Torres Strait Islander suicidal behaviour is Silburn et al. (2014). Australia also has a national Aboriginal and Torres Strait Islander Suicide Prevention Strategy (Department of Health and Ageing & Australian Government, 2013).

Regional and Remote Environments

The work situation for school psychologists operating in regional or remote environments is often completely different to that of their city-based colleagues. Limited access to inter-agency assessment, collaboration and referrals, student

and family mobility (or lack thereof), access to means of suicide, socio-economic variables and social factors combine to make significant differences. When combined with the fact that the proportion of Aboriginal and Torres Strait Islander families is often larger, suicide rates tend to be higher in regional and remote environments.

Social Media

Research has found that if schools establish a presence on social network sites before a crisis occurs, they are better able to reach parents and community members in the event of an emergency (Flitsch, Magnesi, & Brock, 2012). It is recommended that schools establish social media policies and protocols at the onset and teach students to think critically about the effects of any messages and images they post online (Flitsch et al., 2012).

Self-Care for School Psychologists

Working with clients with suicidal behaviour is professionally and emotionally challenging. The professional and personal responsibility and accountability that goes with this work, the ethical dilemmas, the need for good judgment and the anxiety or distress make this one of the most demanding areas of psychological practice. There is the potential for compassion fatigue, burnout, desensitisation, vicarious trauma, countertransference and anxiety. Self-care is thus essential.

Personal reflection and peer consultation are essential but not enough. It is recommended that every school psychologist establish a collegiate support network. This network is beneficial as a preventative strategy and in the time of a crisis as it allows for open communication and support from trusted colleagues. This connection provides the school psychologist with key individuals to consult with and seek professional advice from during the crisis as well as help address any personal support needs that may arise. If a client dies by suicide, it is especially important to turn to the network. On hearing of a school psychologist colleague dealing with a suspected suicide in their school, it is supportive to acknowledge this by email, text message or phone and make the offer to be available to provide personal support should it be needed. Working in a school environment with many suicidal clients over an extended period can be psychologically unhealthy. A change or rotation in work environment may be something to consider.

Conclusion

School psychologists have a significant role to play in supporting schools to take actions that may prevent student suicide. All school psychologists need to access specific training so they can identify, assess and intervene with suicidal students. In the event of a suicide, the school psychologist consulting can guide a school community in postvention response ensuring optimal support for those impacted.

Test Yourself Quiz

1. As a school psychologist starting work in a secondary school with high Aboriginal and Torres Strait Islander student enrolments that has had two student suicides in the last 3 years, what role might you expect to have with suicide prevention?
2. A school seeks your support in assessing the level of suicide risk in a 14-year-old student with known NSSI. What other risk factors and warning signs would you be looking out for?
3. You have been given the opportunity to run a 1-hour suicide prevention awareness raising session for the Student Services team in a secondary school. What information would you cover in this presentation?
4. A principal requests your urgent consultation on Sunday afternoon. A student has alerted him that there is a social media posting that says that another student from the school has just died by suicide. What advice would you

provide the principal regarding verification? If verified, what actions would you advise the principal to take that day and next day?

5. How does the Interpersonal Theory of Suicide explain the apparent recent development of suicide ideation in a socially isolated 16-year-old boy who has just disclosed to you that he has been ostracised by peers over the last year? How would you then conceptualise additional information that the student, who lives in a rural town, has access to guns and regularly shoots feral animals on his family farm?

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Evidence-Based Assessment and Intervention for ADHD in School Psychology

Shelley Hyman, George J. DuPaul, and Matthew J. Gormley

Description and Overview of ADHD

The hallmark symptoms of attention-deficit/hyperactivity disorder (ADHD) are developmentally inappropriate levels of inattentive and hyperactive-impulsive behaviour. Attention is a multifaceted process that requires the ability to sustain attention to a given task and to ignore extraneous stimuli while engaged in that task (Roberts, Milich, & Barkley, 2014). Difficulties in either of these attentional processes result in deficits commonly associated with ADHD (e.g. difficulty sustaining attention in tasks). Similarly, hyperactivity–impulsivity is multidimensional involving volitional, motivational, and automatic attentional processes (Nigg, 2000). Additionally, general deficits in response inhibition and the capacity to anticipate an outcome, positive or negative, typify students with ADHD (Johansen, Aase, Meyer, & Sagvolden, 2002). This general inability to defer outcomes, without consideration of the potential consequences is manifested in the core hyperactive–impulsive symptoms of ADHD.

There is abundant evidence that ADHD has neurophysiological origins and is associated with clinically significant impairment across settings (Barkley, 2015). The most ubiquitous impairments occur within the academic and social domains. Students with ADHD consistently underperform academically relative to their same-aged peers across their educational careers (Frazier, Youngstrom, Glutting, & Watkins, 2007). Students with ADHD have been found to exhibit high rates of active (e.g. getting out of their seat) and passive (e.g. daydreaming) off-task behaviour during classroom instruction (Kofler, Rapport, & Alderson, 2008). Typically, students with ADHD are rated high on social impact (i.e. other students indicate they effect the classroom), but are not well liked, have fewer reciprocal friends, and are identified as non-friends by popular peers (Hoza et al., 2000).

The global prevalence of ADHD is approximately 5 %, and in a meta-analysis by Polanczyk, Silva de Lima, Horta, Biederman, and Rohde (2007), they collapsed studies conducted throughout Oceania (i.e. Australia and proximate islands) together, and estimated prevalence to be just under 5 %, functionally equivalent with the worldwide estimates.

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Assessment of ADHD

Gathering Data for Diagnosis

In conducting a thorough assessment of students with ADHD, data should be collected from multiple sources; both directly from the student as well as from caregivers such as parents and teachers. In Australia the DSM-5 (American Psychological Association, APA, 2013) is mainly used for diagnosis by clinicians (paediatricians, psychiatrists, and psychologists). As specified in the DSM-5, evidence for the symptoms need to be identified in two or more settings. Usually, as a minimum, the symptoms are assessed across home and school settings. Sometimes, the teacher may be able to ascertain the level of functional deficits to a greater extent than parents given the higher expectations for attention and impulse control at school, and teachers will also be able to compare the student to their peers. Often issues will be flagged concerning a child at school, and in many cases classroom teachers will raise their concerns either via parent interview and/or school report. In some cases, the school psychologist will be asked to consult with the teacher or attend a meeting where a child may be referred for a formal assessment. Gathering data regarding the child's behaviour in the classroom and playground can be extremely helpful in order to assist the clinician with making a diagnosis.

Throughout each stage of assessment, it is important to determine the following: (a) whether the presenting inattention symptoms are due primarily to a core developmental attention-based issue that needs direct treatment of attention skills, or (b) whether the presenting inattention symptoms are due primarily to a non-ADHD-based issue that needs a more specific treatment addressing the underlying cause (e.g. various medical conditions, visual processing disorder). This distinction can only be ascertained through a thorough assessment targeting an understanding of a potential differential diagnosis versus any potential co-morbidities. The main goal, therefore, is to understand the full extent of symptoms and then determine the core cause (or potentially multiple causes) of these symptoms.

Clinical Interview

Assessment should always begin with a clinical interview with the student's parents/guardians, to obtain a complete developmental and medical background, and to clarify current issues for the student. A full list of areas that should be screened by the clinician is included in Table 1, and where appropriate the student should be referred for further testing to clarify whether there is a specific condition creating (or contributing to) the attention weakness.

Standardised Questionnaires

To complement the clinical interview, it is extremely helpful to have both parents and teachers complete standardised behaviour rating scales. Preferably these can be obtained prior to the clinical interview, so that the results can inform the direction of the interview as teachers may have additional concerns that may need exploration. There are numerous standardised questionnaires that include ADHD symptom and impairment ratings including brief ratings that focus on ADHD symptoms (e.g. ADHD Rating Scale-5, Brown Attention Deficit Disorder Scales, Clinical Assessment of Attention Deficit-Child), mid-length questionnaires approximately 50–100 questions (e.g. ADHD Symptoms Rating Scale, Attention-Deficit/Hyperactivity Test—2nd Ed), and comprehensive questionnaires that include items for other disorders (Behaviour Assessment Scale for Children-3, Conners Comprehensive Behaviour Rating Scales, Conners 3). There are also several executive functioning questionnaires (e.g. Delis-Rating of Executive Function, Behaviour Rating Inventory of Executive Function, Comprehensive Executive Functioning Inventory) that are valuable in understanding the extent of the functional problems and devising a treatment plan. Whilst these scales tend to have U.S. normative data, they are still highly valid and indicative of issues within the Australian population.

Table 1 Conditions that create symptoms of inattention and/or hyperactivity–impulsivity that may need assessment prior to confirming a diagnosis

Areas of screening	Potential problems that may result in symptoms similar to ADHD	Potential referral for further assessment
Vision	Low acuity, ocular motor issues, acuity problems, accommodation insufficiency, higher level visual processing deficits	Orthoptist or behavioural optometrist
Hearing	Potential hearing loss or higher level auditory processing issues	Audiologist
Sensory Processing	Sensory defensiveness, poor sensory integration	Occupational Therapist
Intellect	Giftedness, low intellect	Psychologist
Learning	Specific learning disabilities, gifted learners who are bored	Psychologist
Sleep	Obstructive sleep apnoea, poor sleep hygiene	Paediatrician or psychologist if psychological in nature
Developmental, birth or genetic conditions	Autism spectrum disorder, prematurity, birth trauma, foetal alcohol syndrome, genetic disorders (e.g. Fragile X, William's Syndrome, etc.)	Medical specialist (depends on issues and symptoms noted)
Other medical conditions:	Allergies, heavy metal poisoning, hyper/hypothyroidism	Medical specialist
Neurological conditions	Hypoxia, head injury, epilepsy	Paediatrician, paediatric neurologist
Nutrition and/or digestive issues	Food allergies, constipation, diarrhoea, nutritional deficiencies, anaemia	General Practitioner (blood tests), gastroenterologist, dietician
Psychological state and behaviour	Depression, anxiety, low self-esteem, perfectionism, oppositional defiant disorder, pre-psychiatric conditions (e.g. childhood bipolar)	Psychologist, psychiatrist
Language skills	Receptive or expressive language disorder	Speech Therapist

Direct Assessment of Student

If the clinical interview and standardised questionnaires indicate significant issues with attention and/or hyperactive–impulsive behaviour, the next stage will be to formally assess the child. The starting point will depend on the issues raised during the clinical interview (as summarised in Table 1). If there is any evidence of medical issues; nutritional deficiencies; sleep problems; or language, vision, or hearing impairments, it is important for these to be followed up as a priority.

Standardised assessment of attention and other core cognitive processing skills underlying the ADHD symptoms is highly debated in relation to clinical utility in the diagnosis of ADHD (McConaughy, Ivanova, Antshel, & Eiraldi, 2009). Although ADHD, by definition, requires the presence of attention, hyperactivity, or impulsivity impairments, there are no guidelines to actually formally assess these skills directly with the child, and behaviour ratings completed by parents and teachers are considered the current benchmark (Barkley, 2015). The use of subjective ratings seems highly counterintuitive given that there exists many objective attention tests, and that research has shown that parent and teacher ratings in ADHD are only modestly correlated (Narad et al., 2015). Research has found that neuropsychological assessment, which identifies the precise cognitive issues underlying the attention problems, can lead to better initiation of treatment and promote better symptom reduction and improved quality of life due to more precise targeting of treatments (Pritchard, Koriakin, Jacobson, & Mahone, 2014). Continuous performance tests such as the Tests of Variables of

Attention (TOVA; Leark, Greenberg, Kindshcki, Dupuy, & Hughes, 2007) and Conners CPT (Conners, 2014), while having mixed psychometric properties, are used typically in a more thorough neurocognitive assessment of ADHD in Australia.

Attention is an umbrella term to describe many different cognitive skills including visual sustained attention, auditory sustained attention, visual attention span, auditory attention span, visual selective attention, switching attention, and divided attention. Issues with any particular cognitive skill can create similar functional weaknesses, therefore testing only elements of attention is not likely to result in an adequate assessment of ADHD. Studies examining the cognitive profile of children with ADHD show that attention, executive functioning, working memory, and information processing should be assessed to understand the core cognitive issues creating the functional attention problems (Barkley, 1997).

Classroom Observations

Depending on the results from the clinical interview, behaviour ratings, and formal testing, enough data is usually available to make a differential diagnosis of whether the attention issues are being caused by a core cognitive issue (like ADHD) versus a different medical, processing, or psychiatric condition. Alternatively, in some cases where there is a great discrepancy between parent and teacher ratings, or a conflict between more subjective ratings and objective test data, clinical observations can help determine what is happening functionally, particularly in the classroom. Depending on the nature of the child's unique cognitive profile, some attention weaknesses may not present as obvious within the classroom setting. For example, if a student demonstrates strong visual attention but weak auditory attention, the student may appear focused but may not be listening, which may be overlooked by a teacher. Where possible, it can be helpful for observations to be conducted by the school psychologist who will be able to collect these data less intrusively than clinicians.

Differential Diagnosis, Potential Misdiagnosis, and Co-morbid Conditions

The relationship between ADHD and various medical conditions has resulted in a controversial debate within the literature, and some researchers even argue that ADHD does not exist and it is actually a cluster of symptoms that may represent other disorders (Saul, 2014). It is generally recognised that ADHD can be misdiagnosed if other conditions that have similar attention problems are not ruled out as a possible aetiology, and that treatment should be targeted at the core condition causing the attention problems. Sometimes it can be challenging to distinguish between whether another condition (e.g. depression) is causing the ADHD symptoms or whether the symptoms would still be at clinical levels if the other condition was not present.

Children and adolescents with ADHD are significantly more likely to have one or more psychiatric disorders, with the most common co-morbidity being oppositional defiant disorder (30–90 %; Rydell, 2010). Other co-morbid disorders include conduct disorder (24–27 %; Larson, Russ, Kahn, & Halfon, 2011), Tourette's syndrome (25–85 %; Geller, Biederman, Griffin, Jones, & Lefkowitz, 1996), tic disorder (20 %; Banaschewski, Neale, Rothenberger, & Roessner, 2007), bipolar disorder (22–24 %; Gillberg et al., 2004), depressive disorders (14 %; Larson et al., 2011), and anxiety disorders (18–50 %; Larson et al., 2011). Up until the publication of the DSM-5 in 2013, ADHD and autism spectrum disorders (ASD) could not be diagnosed as co-morbid; however, roughly 20–50 % of children with ADHD meet the criteria for ASD whilst 30–80 % of patients with ASD meet criteria for ADHD (Rommelse, Franke, Geurts, Hartman, & Buitelaar, 2010).

In regards to the co-morbidities with other processing problems, there is considerable co-occurrence between ADHD and learning disorders (10–50 %; Margari et al., 2013), language disorders (45 %; Hutchinson, Bavin, Efron, & Sciberras, 2012), speech problems (12 %; Larson et al., 2011), reading disorder/dyslexia (18–45 %;

Margari et al., 2013), and executive dysfunction (33 %; Biederman et al., 2004). When other processing issues are present, it is important to ensure that there is a core attention weakness, rather than the main processing weakness subsequently creating functional issues with attention. For example, a student with a receptive language disorder may not be able to sustain focus in the classroom due to the high language demands, but the student may have intact auditory and visual attention skills when the language component is reduced.

Visual processing disorders and auditory processing disorders are also hard to distinguish from ADHD due to the subsequent attention problems associated with these disorders. For example, children with convergence insufficiency have many symptoms of ADHD due to difficulties maintaining eye focus on targets (Damari, Liu, & Smith, 2000). Symptoms of a variety of eye disorders involving eye teaming and oculomotor problems have also been shown to be misdiagnosed as ADHD (Damari et al., 2000). Likewise, auditory processing disorders can produce symptoms of what appears to be inattention in noisy settings such as a classroom or on sporting fields. Even a simple differential diagnosis between ADHD and learning problems can be difficult, as children with delayed learning may become inattentive in the classroom when presented with work beyond their capabilities.

Role of School Psychologist in Assessment

Schools are often the first place that symptoms of inattention and hyperactivity–impulsivity are raised as a problem. The typical age for identification of ADHD is 7 (Australian Institute of Health and Welfare, 2009) and DSM-5 diagnostic criteria are typically used for evaluation purposes. Each school will have a different policy as to when the school psychologist gets involved. Many teachers have very little training in ADHD and new teachers are particularly at risk for labelling a student as a badly behaved child opposed to as a child with a core processing difficulty (Ohan, Visser, Strain, & Allen, 2011). It can be helpful for school psychologists to speak to teachers about ways to identify children with ADHD or other processing disorders and set up a system for referral to the psychologist to determine whether a recommendation for a more thorough assessment is warranted. The school psychologist may want to conduct some classroom or playground observations prior to this recommendation. Each school has different policies over whether the psychologist will be able to offer any formal assessment in the form of behaviour ratings or intellectual/academic assessment.

One of the most important considerations for a school psychologist who does not possess the competency or have the resources available to conduct their own thorough assessment of the student is who to refer the child to for assessment or intervention services. In Australia, ADHD is typically diagnosed by paediatricians, child psychiatrists, or psychologists, with these professions often working closely together to provide a multidisciplinary team. When referring a child for formal assessment, it is vital for a school psychologist to consider the difference among clinicians in the assessment as well as treatment process. For example, whilst all three use clinical interviews and rating scales, psychologists are able to additionally conduct detailed psychometric testing to identify the core processing issue underlying the functional attention weaknesses.

Variables That May Impact Referral, Assessment, and Diagnosis in Schools

Age

A small but compelling body of literature suggests that in addition to a student's age relative to the diagnostic criteria (i.e. onset prior to age 12, the reduction of needed symptoms during later adolescence according to the DSM-5), a child's age relative to classmates is an important factor to consider. For example, Elder (2010) reported that ADHD diagnoses among children who were born just before the kindergarten eligibility cut-off were 60 % more prevalent relative to children

who were born following the cut-off age. Stated differently, the youngest students in a given classroom are diagnosed much more frequently relative to the oldest students in a given class. Thus, it is very important to use measures with age-based (not grade-based) norms when assessing for ADHD as the use of age norms may help to minimise possible bias regarding younger students in a given grade level.

Among very young children, the process of referral, assessment, and diagnosis is complicated due to the relatively low levels of developmentally appropriate attention and behavioural control in this age group. Given the typically high levels of inattention and hyperactivity in early childhood, it may be difficult to differentiate ADHD-related behaviour from typical functioning (DuPaul & Kern, 2011). Further, it may be difficult to accurately differentiate clearly atypical behaviour between other childhood disorders (e.g. autism). Nevertheless, recent studies have shown that diagnosis of ADHD in young children can be done in a reliable and valid fashion as long as measures that take developmental factors into account are used (DuPaul & Kern, 2011).

When students reach adolescence, there are several factors that may impact their referral, assessment, and diagnosis. First, adolescents with ADHD may have higher levels of impairment in behavioural and academic functioning relative to younger children (Barkley, Murphy, & Fischer, 2008). Additionally, teens with ADHD have a higher rate of substance abuse (Sihvoia et al., 2011). These factors may serve as the primary referral question, in which case, screening for ADHD may be warranted. Second, adolescent input should be incorporated into the assessment protocol as teens will likely have important insights into their daily functioning. Given the high co-morbidity rate of ADHD and internalising disorders, adolescent self-report should be utilised to gather information that may otherwise be missed (e.g. symptoms of depression). Finally, the DSM-5 criteria for ADHD has been changed such that symptoms must be evident prior to age 12 and individuals 17 years and older need only five symptoms to meet diagnostic criteria. The increase in age of onset from age 7 to age 12 provides an opportunity for students who begin displaying symptoms of ADHD later in childhood to receive a diagnosis and associated treatment. The reduction in required number of symptoms for older adolescents will facilitate diagnosis among individuals who are experiencing a developmentally appropriate reduction in ADHD symptomatology over time.

Gender

There are few, if any, gender differences in specific or associated impairment among students diagnosed with ADHD. Although some research has reported higher rates of externalising co-morbidity among males and higher internalising co-morbidity among females, these findings are similar to population estimates for those disorders and are likely not specific to ADHD (Owens, Cardoos, & Hinshaw, 2014). In contrast, childhood estimates indicate that males are four times more likely to be diagnosed with ADHD; however, these gender differences are largely attenuated by adulthood (Barkley et al., 2008). Again, it is critical to use assessment measures that include gender-based norms so that symptom frequency for a specific child is considered in the context of normative data for boys relative to girls. Fortunately, gender-based norms are provided for most behaviour rating scales used in identification of ADHD.

Race/Ethnicity

The impact of racial or ethnic minority status appears to have important implications for the referral, assessment, and diagnosis of ADHD; however, their impact is equivocal and poorly understood. We were unable to locate any studies that explicitly examined the impact of race/ethnicity on assessment of ADHD in Australia. Given that many assessment measures (e.g. rating scales) have been developed in the United States (U.S) or other countries, the use of these measures when assessing children from racial minority backgrounds in Australia should be done with caution. Cultural differences need to be considered in assessment in relation to culturally biased test items on formal testing, as well as rater bias on

behavioural rating scales. International research suggests that different cultural groups get rated in different ways by teachers, parents, and mental health professionals (Pierce & Reid, 2004). In Australia, particular caution should be applied to Indigenous and Asian populations. Clinicians must be aware of possible cultural differences in tolerance for ADHD-related behaviours and make sure to obtain assessment data from multiple sources (parents, teachers, and test administrators) to provide a comprehensive view of a child's symptoms, i.e. not just views based on a particular cultural perspective.

Intervention for ADHD

Pharmacological Options

In Australia, fewer medication options are available compared to other countries. There are two categories of medications available for the treatment of children with ADHD: central nervous system (CNS) stimulants and non-stimulants. CNS stimulants are the most commonly used medical treatment for children with ADHD and research has shown that up to 90% of children will show some level of improvement of ADHD symptoms from at least one type of stimulant medication (Connor, 2015).

In Australia, the stimulants that are available are methylphenidate (Ritalin and Concerta), dexamphetamine, and lisdexamfetamine dimesylate (Vyvanse). Short-acting stimulants (e.g. methylphenidate and dexamphetamine) have noticeable benefits for 3–4 h, while the long-acting stimulants (e.g. Vyvanse and Concerta) are effective for approximately 10–12 h, (Kratochvil, Daughton, & Kratochvil, 2009). For the majority of children receiving medication, it is not active within their system in the mornings and after school in the early evenings, which can make family life and home behaviour very challenging.

The most widely used non-stimulant medication is atomoxetine (Strattera) which shows therapeutic effects gradually over 2–6 weeks (Kratochvil et al., 2009). Whilst the effects of Strattera are not as strong as stimulant medications, this medication can be helpful as the benefits are more consistent and do not vary over the day (Garnock-Jones & Keating, 2010), and mild antidepressant properties are also present (Ryan, Katsiyannis, & Hughes, 2011). Most of the previously mentioned medications are under the Pharmaceutical Benefits Scheme (PBS) and are subsidised by the government; however, Concerta and Strattera are not available on PBS from 19 years of age. Vyvanse (lisdexamfetamine) is the latest stimulant medication to be released onto the market; however, its application to the PBS was rejected even for children.

Despite the efficacy of medication, many families are resistant to medicating their children. Approximately 79–90% of children on medication experience adverse side effects such as nausea, sleep problems, mood swings, loss of appetite, and slowed growth, although these side effects dissipate with time and/or reduced dosage (Connor, 2015). Another concern with pharmacotherapy is that the causes of the attention deficits are not treated directly. Thus, as the medication wears off, often in the early evening, the child and family still need strategies to manage cognitive weaknesses, social, and behavioural issues. Medications are also not effective for all children, with up to 30% of children failing to demonstrate a distinctive improvement (Chronis, Jones, & Raggi, 2006). Some children also benefit partially from medication, with skills improving but still not falling within the average range (Qian, Shuai, Chan, Qian, & Wang, 2013). For other children, taking the medication is contraindicated due to specific health or emotional concerns (Elia & Vetter, 2010). Therefore, despite the benefits of medication, it should not be offered as the sole treatment option to families and the benefits need to be closely monitored to determine whether the efficacy of the medication is optimal or whether additional forms of treatment are required. In Australia, the school role in pharmacotherapy is minimal beyond the school nurse administering medication, if necessary.

Of greatest concern is the assumption that medication will improve learning in the classroom and overall academic achievement. Children with ADHD have lower academic skills after adjusting for IQ and are more likely to underachieve at school and have lower educational attainment (Barry, Lyman, & Klinger,

2002). Whilst it appears intuitive that medication should improve these outcomes, research actually indicates limited academic benefits (Van der Oord, Prins, Oosterlaan, & Emmelkamp, 2008).

Community-Based Interventions

Due to many of the core symptoms as well as the co-morbidities and related behavioural issues, relationships with parents and teachers can be affected. Interventions aimed at parents, teachers, schools, and the general community as a whole can significantly improve awareness towards ADHD and the impact it has on the student. Community-based interventions, such as training primary care providers, have resulted in significant improvements in evidence-based care for these children during assessments and treatments (Epstein & Langberg, 2009).

Having such a high prevalence of ADHD amongst children and adolescents in Australia means that schools should facilitate appropriate programs designed for both the student coping with the disorder and the teachers. It would be extremely damaging if these students are labelled as misbehaved or uncooperative by their teachers, as a result of behaviours not within their control, which could further result in social isolation and lower self-esteem. Unfortunately, there is no current government funding for ADHD services and interventions in schools, leaving teachers with very little support to help maximise their learning potential. ADHD is not listed as a recognised disability by the NSW Department of Education and Training criteria to be able to obtain integration funding in public school classrooms (as opposed to autism or other visual, hearing, language, or mental disorders).

Parenting and Behavioural Management

Parent training and behaviour therapy are aimed at teaching parent's strategies to manage and change their children's behaviour, such as hyperactivity, impulsivity, inattention, and other related conduct problems (Raghibi, Fouladi, & Bakhshani, 2014). Most parent training programs focus on a set of core parenting skills that have been shown effective for students with ADHD. For example, programs may address setting consistent, developmentally appropriate, and clear expectations for their child's behaviour overall; using clear and concise directives when needed; rewarding appropriate behaviour with attention, praise, or tangible reinforcers; ignoring minor inappropriate behaviours and providing direct, firm, but neutral reprimands and punishments when required. Additionally, many programs for the parents of children with ADHD discuss effective communication with the child's school and managing the additional stress related to parenting a child with ADHD (Owens, Storer, & Girio-Herrera, 2011). After parents are taught strategies aimed at managing their children's ADHD-related behaviours, there are significant improvements in the core ADHD symptoms in both home and school settings as well as reductions of parental stress and improvements in parental confidence (Zwi, Jones, Thorgaard, York, & Dennis, 2011).

Treating Core Skills

Attention Training

Neurofeedback involves direct training of brain function whereby brain activity is relayed back to the individual via a computer program, so they can develop self-regulation strategies to be used in everyday life (Gevensleben et al., 2010). Meta-analyses of the current body of research show promising results and particularly good improvements in core attention skills. Research has found that children and adolescents who received neurofeedback training had fewer ADHD symptoms, and greater improvement and stability of behaviour at 6 months after the intervention (Gevensleben et al., 2010). Neurofeedback is based upon findings that children with ADHD have brain dysregulation characterised by imbalances noted in various brainwaves as measured by EEG. These imbalances are associated with under-arousal (inattention, daydreaming, low motivation, and energy), as well as over-arousal

(hyperactivity, impulsivity, agitation, and anxiety). Through training the brain to be more regulated, these symptoms have been shown to improve significantly. Neurofeedback could possibly provide a very valuable way for school psychologists to treat ADHD directly in the school setting; however, it is important to note that findings are mixed regarding generalisation of obtained effects in classroom settings (Evans, Owens, & Bunford, 2014).

The use of computerised programs to improve cognitive skill has become increasingly widespread, with commercially available 'brain training' programmes being developed rapidly. The use of these programmes in assisting children with ADHD is only just becoming explored in the research. As understanding of specific neuropsychological skills is becoming better understood and targeted in the design of these programmes, there does seem to be increasing evidence for some utility in improving core cognitive skills. In general, the benefits of computer cognitive training have been shown to be inconsistent (Sonuga-Barke et al., 2013). Increasing evidence is beginning to emerge for the benefits of well-designed cognitive training programmes that recognise that different aspects of attention and executive functioning can be specifically impaired and trains skills in a variety of areas (Tucha et al., 2011); however, much more research is needed at these early stages. CogMed is a common programme some clinicians in Australia recommend to help alleviate specific issues with working memory and attention and is beginning to be used in many private school settings by school psychologists or special needs departments. Research on this programme has shown some utility with improvements noted on functional ratings in regards to ADHD symptoms as well as functional working memory (Beck, Hanson, Puffenberger, Benninger, & Benninger, 2010). Although early research was promising in relation to improvements on untrained measures of cognitive ability, more current research has found little generalisation and only benefits on trained tasks (Shipstead, Hicks, & Engle, 2012).

Non-computerised cognitive training that specifically targets attention skills is currently quite limited. The 'Pay Attention!' programme targets a full range of attention skills in both auditory and visual domains, and has been shown to improve numerous cognitive skills on neuropsychological tests, as well as show improvements on standardised ratings in relation to ADHD symptoms and executive skills by parents (Tamm et al., 2010). Interestingly, research shows that mindfulness training can reduce attentional and behavioural problems, improve performance on attentional tests, and enhance working memory among adolescents with ADHD, in addition to reducing parental stress (Van de Weijer-Bergsma, Formsma, de Bruin, & Bögels, 2012).

Executive Training

As our understanding of ADHD has improved over the past decades, it has become apparent that executive function difficulties are often a key feature in ADHD and frequently affect quality of life, diminishing educational outcomes. Issues with planning, organisation, time management, problem-solving, and working memory are often part of the cognitive profile and need to be targeted directly in treatment. There is minimal evidence to show that stimulant medication helps improve executive skills such as organisational ability (Abikoff et al., 2009). For this reason, it is important to treat the frequently found executive deficits through more cognitive-based skill training. This type of therapy is often conducted by either psychologists or occupational therapists with experience in this area. Research into this field is relatively new; however, studies support executive training with a particular metacognitive focus as a promising intervention for young children with ADHD (Tamm, Nakonezny, & Hughes, 2014). Self-management training in adolescents with ADHD has been shown to be highly effective when implemented by school psychologists in remediating executive deficits (Gureasko-Moore, Dupaul, & White, 2006). Organisational training has been shown to have positive outcomes in school-related activities, with some evidence that it can reduce ADHD symptoms and result in academic gains (Langberg, Epstein, & Graham,

2008). Two evidence-based programmes should be considered including the Homework, Organisation, and Planning Skills (HOPS) programme (Langberg, 2011) and the Organisational Skills Training for Children with ADHD (Gallagher, Abikoff, & Spira, 2014). Both programmes involve manualised procedures for directly training student's note taking, completing homework in a timely fashion, and organising school materials.

Classroom Behavioural Interventions

As is the case for parents, classroom teachers can implement behavioural interventions such as token reinforcement or response cost to increase sustained attention to tasks, work completion, and compliance with school rules (Evans et al., 2014). Further, the concomitant use of classroom behavioural strategies and stimulant medication can lead to using lower dosage of both interventions while maintaining optimal academic and behavioural outcomes (Fabiano et al., 2007).

There are several steps involved in designing and implementing a classroom behavioural intervention (for additional detail, see DuPaul & Stoner, 2014). First, three to four student behaviours (e.g. following classroom rules) are identified for improvement. Next, the classroom teacher and/or school psychologist collect baseline data to document pre-treatment levels for target behaviours as well as to identify antecedent (e.g. task demands) and consequent (e.g. avoiding work) events that may precede and follow problematic behaviour, respectively. Specific goals are then delineated so the student knows the performance level necessary to earn an immediate reinforcer (i.e. token reinforcement such as a sticker or point on a chart). Third, the teacher monitors student performance over a specified period of time. If the student meets the specified goal for a particular behaviour, then the teacher praises the student and provides the token reinforcer. If the goal is not met, the teacher praises student effort and encourages continued efforts for the future. Fourth, token reinforcers are exchanged at the end of the class period or at the end of the school day for backup reinforcement (i.e. gain access to a preferred activity). Finally, as students make progress, behavioural goals can be modified so that performance gradually improves over time.

Self-regulation strategies such as self-monitoring and self-evaluation can be used to facilitate maintenance and generalisation of behavioural improvements obtained through a token reinforcement programme (DuPaul & Stoner, 2014). For example, students can be prompted at specific intervals to monitor and record their on-task behaviour and/or their productivity on academic tasks (Reid, Trout, & Schartz, 2005). The process of self-monitoring involves observing and recording one's behaviours and includes two basic steps. First, the student must determine if the target behaviour has occurred and following that determination the student must record that occurrence or non-occurrence (Mace, Belfiore, & Hutchinson, 2001). Some variations of this strategy include an initial stage of matching with teacher evaluations followed by gradual transition to self-evaluation alone (DuPaul & Stoner, 2014).

Home–School Communication Program

Another treatment strategy that has been found effective for children and adolescents with ADHD is the use of a home–school communication program, also known as a daily report card (DRC) system (Evans et al., 2014). Over 70% of students with ADHD show behavioural improvement within the first month of a DRC program with additional gradual improvement over the course of several months of treatment (Owen et al., 2012). The DRC involves several steps including: (a) identification of several academic (e.g. work completion) and behavioural (e.g. follow class rules) goals ideally through a collaborative meeting among school personnel, parents, and students; (b) construction of a DRC wherein the teacher indicates whether the student met each goal over the course of a class period or portion of the school day; (c) imple-

mentation on a daily basis with parents reviewing the completed DRC and providing reinforcement (i.e. access to preferred activities) at home contingent on successful days; and (d) periodic meetings among school personnel, parents, and students to modify DRC goals and procedures as necessary. Basically, the DRC employs the same principles as classroom behavioural strategies; however, reinforcement is provided by parents at home after the school day rather than being provided by teachers in the classroom setting.

Academic Intervention Strategies

As described previously, children and adolescents with ADHD often experience significant difficulties with academic achievement as demonstrated by lower report card grades and scores on achievement tests (DuPaul & Stoner, 2014; Frazier et al., 2007). Although stimulant medication and behavioural interventions may be associated with improvements in academic performance, the magnitude of effects is typically small and not sufficient to normalise achievement (DuPaul, Eckert, & Vilardo, 2012; MTA Cooperative Group, 1999). Thus, classroom interventions that directly address academic skill and performance deficits often are necessary. For academic skill deficits, teachers can use principles of explicit instruction, a direct approach to teaching that involves providing clear information to students about what is to be learned; instructing skills in small steps using concrete, multiple examples; continuously assessing student understanding of specific skills; and supporting active student participation that ensures success (Nelson, Benner, & Mooney, 2008). Peer tutoring can also be used to enhance academic performance and involves pairing two students wherein they take turns in the roles of tutor and tutee. Peer tutoring strategies have been found to improve on-task behaviour and academic performance of students with ADHD (DuPaul, Ervin, Hook, & McGoey, 1998) as well as students without disabilities (Bowman-Perrott et al., 2013).

Social Skills Training

Whilst CNS stimulant medication can help with some of the socially intrusive behaviours of children with ADHD, social issues persist as medication target symptoms of inattention, impulsivity, and hyperactivity, rather than educating children on positive social behaviours (de Boo & Prins, 2007). Social skills training can be an important part of the ADHD treatment plan, as social impairments can increase the risk for emotional, behavioural, and even substance abuse problems later in life (Greene, Biederman, Faraone, Sienna, & Garcia-Jetton, 1997). Typical manifestations of impairment that ADHD youth demonstrate in social situations include disrupting and intruding in on conversations or the avoidance of peers (Marshall, Evans, Eiraldi, Becker, & Power, 2014). Research has shown that social skill training in children with ADHD can have mixed results, with children demonstrating more positive social behaviours in a session, but less generalisation to a more naturalistic setting, along with issues with changing peers negative biases towards the child with ADHD (Mikami, Jia, & Na, 2014). Alternative approaches to social skills training that involves parents and teachers have found a greater likelihood of generalisation to real-world settings (Pfiffner & McBurnett, 1997).

Assessment and Promotion of Treatment Integrity

It is important to promote treatment integrity to ensure that positive outcomes are maximised. Thus, when monitoring the progress of ADHD treatments, objective clinical data are needed to determine whether changes or additional therapy is necessary. Treatment plans can consist of single to multiple therapies, either given consecutively or concurrently, and the plan can become quite complex depending on the number of comorbidities that require treatment.

In many cases, particularly when ADHD symptoms are mild in severity, behavioural and other psychosocial treatments will be tried before pharmacotherapy (DuPaul & Stoner, 2014). If

medication is provided, it is essential to have the student on a stable medication at the correct dosage before other types of treatment are provided directly to the child, in order to be able to assess whether the medication is working optimally and to discern among the effects of medication relative to other treatments. Paediatricians may need to try several dosages or even several different medications in order to find the most suitable medication. It is also important to monitor the emotional and behavioural side effects of medication as some children can have increased anxiety and others may rebound when coming off medication with very negative behaviour (Garland, 1998). This could be something that school psychologists could monitor given that the medication is mostly in the child's system during the school day. The efficacy of the medication needs to be evaluated relative to the benefits and costs, and it needs to be recognised that even though some students may benefit cognitively from medication, the costs in relation to adverse side effects may result in medication not being a good option for some children.

Similarly for all other types of non-pharmacological interventions, it is important to monitor the progress of the interventions and make sure that the student's skills are improving. Unlike medication where the benefits are often immediately effective (<1 h), the benefits of all other interventions are more gradual and can take weeks, if not months. Often these interventions are given concurrently by the same therapist (including school practitioners) and it can be hard to determine which therapies are producing the most beneficial results. Standardised questionnaires can provide good evidence for improvements over time and if intensive therapy is being conducted it can be helpful to get ratings at the end of each term. These should include not only attention ratings, but also assessment of co-morbidities and areas of functional impairment including social skills, academic achievement, behaviour/conduct, emotional status, and parental/family stress.

If specific attention or executive training is conducted, it is very helpful to have neuropsychological test data particularly in relation to objective attention and executive tests. These data can provide guidelines as to what specific skills need treating (e.g. visual sustained attention, auditory sustained attention, divided attention, working memory planning, organisation). Post-treatment testing can then also objectively assess whether all the skills that were below average are normalised compared to their peers following treatment.

Case Example of Assessment and Intervention: ADHD with Co-morbid Issues

Background

LS was a 7-year-old girl identified for assessment by her teacher due to problems completing independent seatwork, talking without permission, and noncompliance with school rules. The teacher indicated that the quality of LS's academic work was similar to that of her classmates when the teacher worked with her individually. Alternatively, due to her inconsistent completion of assigned work and frequent inattention during exams, LS was reported to achieve below her presumed potential. Some of these same issues were noted by the school when LS was 6 and a paediatric assessment was recommended. Her paediatrician raised the possibility of ADHD but had not formally assessed for it. LS had completed neurofeedback with a psychologist to help with her ongoing attention issues; however, no formal assessment of ADHD was conducted, and neurofeedback was discontinued early. Given the apparent chronicity of LS's attention and behaviour problems, the school psychologist collected data to identify possible school-based indicators of ADHD.

Assessment

After briefly discussing the case, the school psychologist asked the teacher to complete a screening instrument (i.e. the ADHD Rating Scale—5). LS's ratings were beyond the 93rd percentile based on her age and gender for the total score as

well as the Inattention and Hyperactivity–Impulsivity factor scores. Also, six inattention and six hyperactivity–impulsivity symptoms (using DSM-5 criteria) were reported to occur "often" or "very often". Based on this screening information, the nature of the referral, and the chronicity of LS's school difficulties, a multimethod assessment of ADHD appeared warranted.

As a first step in the assessment process, the school psychologist interviewed LS's classroom teacher. In the course of the interview, it was reported that she displayed frequent problems with inattention, impulsivity, overactivity, and noncompliance across most school settings and classroom activities. These problems were most evident when independent seatwork was assigned and when the teacher was instructing the whole class or small groups. There did not appear to be any differences in this behaviour across academic subject areas. LS was reported to evidence seven of the nine inattention symptoms and six of the nine hyperactivity–impulsivity symptoms of ADHD on a frequent basis. These symptoms had been exhibited on a daily basis since the beginning of the school year. Furthermore, a significant number (i.e. five out of eight) of symptoms of oppositional defiant disorder were reported to occur on a frequent basis. The latter included noncompliance with teacher commands, frequent losses of temper, and deliberate annoyance of others. Problems associated with other disorders (e.g. conduct disorder, depression) were not reported to occur frequently.

Due to the nature and severity of her attention and behaviour problems, LS was not achieving at a level consistent with her classmates in any academic subject area; however, her teacher did not feel that LS had a learning disability. She reported that when she worked with LS on an individual basis, she was able to demonstrate adequate knowledge in key skill areas (e.g. she was able to read high-interest material). When she was asked to complete independent work, particularly material that did not capture her interest, she was not able to demonstrate her abilities due to a lack of work completion.

LS had very few friends in the classroom and was rejected by many of her peers. She did not follow the rules of games and frequently was verbally aggressive in unstructured settings (e.g. on the playground). Her teacher felt that many of her disruptive behaviours (e.g. talking out in the classroom) were an attempt to elicit attention from her peers. Unfortunately, these efforts to promote peer interaction resulted in further ostracism by her classmates.

The teacher reported a great deal of frustration in trying to manage LS's behaviour. Attempted interventions included ignoring her disruptive behaviour, making public reprimands to get back on task, sending notes to her parents following misbehaviour, giving her a reward (e.g. access to classroom computer) for a week of appropriate behaviour, and reducing the number of items she is expected to complete for seatwork. None of these strategies resulted in consistent behavioural improvement.

LS's report cards from previous school years were reviewed. Written comments from previous teachers indicated that she displayed similar problems with behaviour control, albeit less severe, as reported by his current teacher. A pattern of attention and behaviour control problems beginning at an early age and occurring across school years was evident.

LS's mother was interviewed briefly by telephone and corroborated the teacher's report of significant problems with inattention, impulsivity, and overactivity. In fact, nearly all of the symptoms of ADHD were reported to occur on a frequent basis at home. These had been evident from an early age (i.e. since she was 3 years old). She reported that LS was very defiant and uncooperative at home, especially in response to maternal commands. A majority of the symptoms of oppositional defiant disorder were indicated to be present. No further DSM-5 symptomatology was reported. She did not have a history of significant medical difficulties or developmental delays. LS's father was reported to have had similar attention and behaviour problems as a child, but was now a successful businessman. No other significant problems were reported for immediate family members. Finally, her mother stated that she was very interested in receiving help in managing LS's behaviour as the stress level in the household was directly related to the degree to

which she behaved in an appropriate manner. Previous attempts at intervention, including family therapy, had failed.

Maternal responses on the Behaviour Assessment Scale for Children-3 resulted in significant elevations on subscales related to ADHD symptoms all of which were at or beyond the 95th percentile. All remaining subscales were below the 93rd percentile (i.e. in the normal range). Teacher ratings on the Behaviour Assessment Scale for Children-3 were consistent with those provided by LS's mother as significant elevations were obtained on subscales related to ADHD with all scores at or above the 98th percentile. Remaining subscale scores were in the normal range. LS's mother and teacher also completed ratings of her social skills using the Social Skills Improvement System (SSIS; Gresham & Elliott, 2008). These ratings indicated LS exhibited problems with peer relationships and social interactions to a greater extent than 93% of similar-aged girls in the normative sample.

LS's classroom behaviour was observed on several occasions using the Behaviour Observation of Students in Schools (BOSS; Shapiro, 2011). Observations were conducted for 20 min on three occasions (once during math seatwork, twice while working on a reading assignment). LS was noted to display high rates of off-task verbal and motor behaviours. She displayed off-task verbal behaviour during an average of 20% of the observation intervals, while exhibiting off-task motor behaviour approximately 15% of the time. In contrast, randomly selected classmates were observed to exhibit off-task verbal behaviour only 4% of the time and were engaged in off-task motor behaviour during less than 8% of the observation intervals. Thus, direct observations were consistent with both parent and teacher report of significant behaviour control difficulties relative to LS's peers.

The next step in the evaluation process was to interpret the results. LS's teacher and mother independently reported at least six inattention and six hyperactivity–impulsivity symptoms to be evident on a frequent basis. According to his mother, she began exhibiting ADHD-related difficulties at the age of 3 with no diminishment of severity. Thus, these symptoms were evident at an early age and were displayed across several years. Maternal and teacher ratings indicated LS's problems with inattention, impulsivity, and overactivity were more frequent and severe than those of the vast majority of other girls her age. This was corroborated by direct observations of her classroom behaviour. Furthermore, attention problems were reported to be pervasive across numerous school and home situations. Finally, LS's ADHD-related behaviours had impaired her peer relationships and academic performance to a significant degree.

Because LS also was reported to display a significant number of oppositional defiant disorder symptoms, she was referred for further diagnostic evaluation with a clinical psychologist in the community. A comprehensive neuropsychological evaluation was conducted that basically affirmed school-based data in indicating that LS's difficulties warranted diagnoses of both ADHD combined presentation and oppositional defiant disorder.

In an effort to gather data that would inform development of a behavioural intervention, the school psychologist interviewed LS's teacher regarding the antecedents and consequences surrounding her off-task disruptive behaviour in the classroom. In addition, the school psychologist recorded the frequency of antecedent (e.g. task presentation) and consequent (e.g. peer laughter) events during various classroom situations. Interview and observation data indicated that LS's disruptive behaviour was most likely to occur when she was asked to complete independent seatwork and that this behaviour was followed by frequent teacher reminders for her to focus on her work. It appeared that the function of her off-task behaviour was to avoid and escape classwork.

Treatment

Several school-based interventions were implemented based on this evaluation. First, the school psychologist and teacher designed a classroom intervention programme that included modifying task demands, token reinforcement, response cost, and a home–school communication programme

(for more details regarding classroom intervention, see DuPaul & Stoner, 2014). These interventions were designed to reduce LS's desire to avoid work by enhancing the positive aspects of the latter while providing greater motivation for her to complete assigned tasks. Second, referrals were made to a clinical child psychologist and LS's paediatrician for provision of parent education and a medication assessment, respectively. Parent education was necessary due to her high level of defiance and inattention at home. A medication assessment was recommended due to the severity of LS's ADHD and the high likelihood of continued impairment in functioning in a number of key areas. Finally, a peer relationship intervention was designed to address LS's problematic social behaviours. Specifically, a peer-mediated procedure was used wherein several of his classmates were trained to prompt and reinforce appropriate social behaviour on the playground. It was felt that this combination of interventions would be necessary over the long term given the chronicity and severity of LS's ADHD.

In collaboration with the treatment team (i.e. paediatrician, clinical psychologist, parents, teacher), the school psychologist periodically assessed LS's classroom performance to evaluate her progress and to determine whether changes were warranted to the school-based intervention programme. Teacher ratings and classroom observations were obtained on at least a weekly basis during the initial stages of implementing the multicomponent behavioural intervention. Adjustments were made to the timing and frequency of reinforcement as a result. Over the course of the school year, teacher and parent ratings were collected periodically and shared with the clinical psychologist and paediatrician to inform possible changes in medication dosage and/or parent education.

Future Directions for Research and Practice

Given the chronic impact of ADHD on school and academic outcomes, there is a critical need to increase the number and complexity of empirical studies focused on educational impairment. Longitudinal investigations of educational functioning among children with ADHD should be conducted to advance our understanding of (a) the nature of educational impairments associated with ADHD, (b) the dynamic changes that may occur with respect to scholastic functioning, and (c) the critical time periods when intervention may be most needed (e.g. entry to elementary school, transition to high school).

Substantial progress has been made regarding the development of school-based interventions for students with ADHD; however, several notable limitations remain. For example, there has been almost no research evaluating educational interventions for students attending secondary school or university. This is important because treatment strategies effective for younger students with ADHD may not help older students. As a second example, many available interventions targeting educational impairment include multiple components that are staff- and resource-intensive. Even if these interventions are highly effective, it is not clear that schools have the expertise or resources needed to carry them out. Additional research is needed on interventions such as daily report cards that can be implemented with minimal staff effort and resources. Ultimately, it is critical that school psychologists are involved to a greater degree in identification of students with ADHD as well as design, implementation, and evaluation of school-based interventions. Without involvement of school mental health professionals and an increased focus on feasibility, acceptability, and dissemination, it is unlikely that effective school interventions will reach the students for whom they were designed.

Test Yourself Quiz

1. The prevalence of ADHD has been found to vary across boys vs. girls and across cultural groups. In what ways can you take gender and culture into account as you conduct an assessment of ADHD?
2. It is very important to consider possible alternative explanations for a child's apparent

ADHD symptoms. What other conditions and disorders might involve symptoms that affect attention, impulse control, and activity level? What actions can you take to account for these alternatives in the assessment of ADHD?

3. Sam is an 8-year-old boy with ADHD combined presentation. Sam's completion of classwork is very inconsistent and he struggles to stay on-task for more than 10 min at a time. As a school psychologist, what behavioural interventions would you recommend in consultation with the teacher to promote classwork completion?
4. A variety of psychotropic medications are available for treating ADHD. What do you think are the most important considerations in recommending medication to treat symptoms of this disorder? What role could school psychologists and other practitioners play in assisting physicians in making medication decisions?
5. A variety of psychosocial and educational support strategies have been found effective for children and adolescents with ADHD. What are the primary treatment approaches and how can school psychologists support the implementation of these strategies in schools?

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Suggested Resources

Children and Adults with ADHD (CHADD). www.chadd.org

National Resource Center for ADHD. www.help4ADHD.org

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Evidence-Based Assessment and Intervention for Oppositional Defiant Disorder and Conduct Disorder in School Psychology

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Introduction

Disruptive behaviour disorders (DBD's) are the third most common childhood psychological disorder behind anxiety and mood disorders (Merikangas et al., 2010a). They can affect the individual's social adjustment and educational achievement, disrupt family harmony, place strain on resource-limited learning environments, impact juvenile justice systems and challenge wider society (Murrihy, Kidman, & Ollendick, 2010). Apart from their immediate impact, DBDs also predict problems extending into adulthood. These include but are not limited to: economic hardship, engaging in and being convicted of serious violent crimes, employment difficulties, homelessness, and physical and mental health concerns (Kim-Cohen et al., 2003; Odgers et al., 2007, 2008). Preschool and early schooling often represent the first settings wherein the extent of problems become apparent as the child struggles to conform to expected social and classroom norms. Fortunately, evidence-based preventative interventions and treatments are available, particularly for primary students, and to a lesser extent for secondary students (Murrihy et al., 2010). This chapter reviews, from an international perspective, the theoretical underpinnings of DBDs and some of the approaches to treatment currently being used in schools.

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Classification of Disruptive Behaviour Disorders

Disruptive behaviour disorders are an all-encompassing term used to classify a group of psychological disorders characterised by oppositional, disruptive and aggressive behaviours. The two disorders under consideration here are Oppositional Defiant Disorder (ODD) and Conduct Disorder (CD), with both existing in the Diagnostic and Statistical Manual of Mental Disorders (DSM), the preeminent psychiatric classification system, since 1980 (APA, 2013).

Oppositional Defiant Disorder

Oppositional defiant disorder is a diagnosis that encompasses a heterogeneous group of youth[1] characterised by negativistic, defiant and hostile

[1] Youth refers collectively to children and adolescents.

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emotions and behaviour (APA, 2013). The DSM-V criteria provided for ODD are divided into two categories, comprising negative mood symptoms and behavioural symptoms. Negative mood symptoms represent a lack of emotional control and include loss of temper, being easily annoyed and often angry and resentful. Defiant behaviour encompasses frequent conflict with authority figures, refusing to comply with requests or follow rules, deliberately annoying others, blaming others for his/her mistakes and acting vindictively towards others. To receive a diagnosis, four of these symptoms should be evident over a 6-month period and the behaviour problems must cause significant impairment in functioning in at least one setting (APA, 2013). Early symptoms of ODD often emerge in the preschool years and rates of ODD typically remain constant from ages 5 through 10, after which a sharp decline takes place (APA, 2013; Maughan, Rowe, Messer, Goodman, & Meltzer, 2004).

Conduct Disorder

Interestingly, the DSM-V CD criteria discard the emotional symptoms required for ODD and instead focus exclusively on aggressive *behaviours* that violate the rights of others and/or bring the youth into conflict with societal norms (APA, 2013). As with ODD, youth who meet a CD diagnosis constitute a wide and varied group. The major features of CD fall into four categories: (1) aggression to people and animals, (2) destruction of property, (3) deceitfulness or theft (e.g. cons others, shoplifting) and (4) serious violations of rules (e.g. truancy). For a diagnosis to be given, three criteria must be present over a 12-month period (APA, 2013). Conduct Disorder diagnoses can be made from the early primary school years; however, most students receive a CD diagnosis between the ages of 10 and 15 years (Maughan et al., 2004).

What Is the Relationship Between ODD and CD?

ODD has been broadly conceptualised as "a developmental antecedent to conduct disorder" (Rowe, Costello, Angold, Copeland, & Maughan, 2010, p. 2). Research does partially support this conceptualisation that ODD is followed by CD, but this is only one of a number of potential pathways that youth with ODD may progress through. A subgroup of children who develop ODD in early childhood, as early as the preschool years, do progress in a hierarchical fashion to CD, typically in middle childhood to middle adolescence (Biederman et al., 1996; Rowe et al., 2010), with research suggesting that 31–42 % of those experiencing ODD will subsequently receive a diagnosis of CD (Maughan et al., 2004; Nock, Kazdin, Hiripi, & Kessler, 2007).

Although a substantial proportion of those experiencing ODD will subsequently receive a CD diagnosis, the majority of those with ODD will not go on to reach criteria for CD (Biederman et al., 1996; Nock et al., 2007). Adding further weight to the notion that ODD is a distinct entity is research which shows that after controlling for CD, ODD still represents a heightened risk for a wide range of secondary disorders (Nock et al., 2007), as well as family and social dysfunction (Greene et al., 2002). These findings challenge the commonly held belief that ODD is a "fairly benign" disorder (Loeber, Burke, & Pardini, 2009, p. 293) and is prompting researchers to treat the disorders as two separate entities in future research (Rowe et al., 2010).

Gender

The DSM classification criteria adopted for DBDs was validated on a male sample (Moffitt et al., 2008). As a result, the DSM has been criticised for not capturing the female expression of aggression (Moffitt et al., 2008). It is thought that girls do not fit the mould of the overt DSM behavioural criteria—rather, they are more likely to engage in covert or indirect aggression (e.g. spreading rumours, ignoring others; Moffitt et al., 2008). It is argued that because of these classification uncertainties, girls are not receiving diagnoses as frequently and are being overlooked in the research despite significant functional impairment (Brennan & Shaw, 2013). Thus, the need to better understand how girls experience DBDs and how their symptoms fit into the diagnostic nomenclature remains an urgent research priority.

Epidemiology of Disruptive Behaviour Disorders

Merikangas and colleagues (2010b) interviewed over 10,000 US adolescents and found that 12.6 % of respondents had a lifetime prevalence of ODD. Males were slightly more likely to have reached the diagnostic threshold for ODD than females, scoring 13.9 % versus 11.3 %, respectively. As was expected, given the relative severity of a CD diagnosis, prevalence rates were half those of ODD (6.8 %). There was no substantial difference evident in lifetime CD rates between males and females (7.9 % vs. 5.8 %).

The prevalence of CD was also investigated in an Australian population sample in the Second Child and Adolescent Survey of Mental Health and Well-Being study (Lawrence et al., 2015). Interviewers conducted face-to-face structured interviews with 6300 parents and found the 12-month prevalence of CD to be 2.1 %. This is comparable to a 3 % prevalence rate in the Netherlands, 2.6 % in Puerto Rico, 2.2 % in Brazil and 1.5 % in the United Kingdom and the United Arab Emirates, respectively (Canino et al., 2004; Eapen, al-Gazali, Bin-Othman, & Abou-Saleh, 1998; Fleitlich-Bilyk & Goodman, 2004; Ford, Goodman, & Meltzer, 2003; Zwirs et al., 2007). Indigenous students in Australia appear to be disproportionately affected by conduct problems. Twenty-six per cent of Aboriginal parents in one study reported they were 'somewhat concerned' to 'concerned' about their child's behaviour compared to 13 % of non-Aboriginal parents (DEECD, 2008).

Co-morbidity

Persuasive evidence exists that ODD and CD are highly co-morbid disorders (Greene et al., 2002; Nock et al., 2007, Nock, Kazdin, Hiripi, & Kessler, 2006, 2007), and having a DBD places a person at significantly greater risk of developing secondary disorders (Kim-Cohen et al., 2003; Nock et al., 2006, 2007). In a large community study, over 90 % of adults with lifetime ODD also reached criteria for another disorder with co-morbidity occurring with both externalising and internalising disorders (Nock et al., 2007). Nock and colleagues reported that ODD co-occurred with the following disorders: anxiety disorders (62 %), depression (45 %), substance abuse (47 %) and attention deficit hyperactivity disorder (33 %; 2007).

Developmental Pathways to Conduct Disorder

Combining youth with DBDs into a homogenous group, researchers have identified a vast number of interacting risk factors that play a role in the development of DBDs. These risk factors include individual factors such as genetics, neurocognitive deficits, biological deficits and temperamental vulnerabilities. Environmental risk factors include prenatal exposure to toxins, dysfunctional parenting practices, family conflict and psychopathology, low socioeconomic status, poor quality childcare, socialising with deviant peers and exposure to neighbourhood violence, amongst others (Frick & Viding, 2009; Loeber et al., 2009).

Recent research has focused on breaking down this larger group of youth with DBDs into homogenous subgroups, each with its own distinct aetiological mechanisms and trajectories (Kimonis & Frick, 2010). Several common pathways have been identified as CD subgroups in the DSM-V (APA, 2013). The age that oppositional symptoms first develop has emerged as an important guide for delineating subtypes (APA, 2013). The childhood-onset subtype in the DSM-V requires that at least one symptom of CD emerges prior to age 10. In contrast, the adolescent-onset subtype stipulates that no symptoms of CD are present prior to age 10 (APA, 2013). The number of children who meet criteria for the childhood-onset subtype is far fewer than those in the adolescent-onset group (10.5 % vs. 19.6 %; Odgers et al., 2007).

Those children showing CD symptoms in early to mid primary school (childhood-onset group) typically shows more severe and persistent behaviours than the adolescent-onset group (Dandreaux & Frick, 2009; Odgers et al., 2007). They often display neuropsychological and temperamental vulnerabilities as well as come from families with high levels of dysfunction including conflict, ineffective parenting and psychopathology (Frick & Viding,

2009). Youth who have symptoms that emerge in secondary school (adolescent-onset) are thought to have fewer of these childhood dispositional vulnerabilities. Rather, the adolescent-onset subtype is believed to be the result of difficulties adaptively meeting a developmental milestone. For example, while many young people rebel as they move from adolescence to adulthood and begin separating from their parents, it is those from the adolescent-onset subtype that appear to experience an exaggeration of this rebellion process (Dandreaux & Frick, 2009). Whilst some of the youth in the adolescent-onset subtype go on to have lasting problems (Odgers et al., 2008), most problems subside, perhaps due to their integration into prosocial work or educational roles (Pardini & Frick, 2013).

Complicating a simple division between childhood and adolescent-onset subtypes has been the discovery of more than one developmental pathway within the childhood-onset group. A growing body of research has amassed into 'callous-unemotional (CU) traits', which represent the affective dimension of psychopathy in youth (Hawes, Price, & Dadds, 2014). The DSM-V acknowledged the significance of this group by introducing the specifier 'with limited prosocial emotions' in the most recent edition. For criteria to be met the child must display at least two symptoms including a lack of remorse or guilt about breaking rules or hurting others, callousness or a lack of empathy for the feelings of others, a lack of concern about performance and deficient affect (APA, 2013).

The second childhood-onset subtype identified by the research is the 'emotionally dysregulated' subtype. These youth have strong reactions to distress in others and emotionally provocative situations (Pardini & Frick, 2013). Neurocognitive deficits such as impulsivity, verbal deficits and hostile attribution biases are often evident and can lead to reactive aggression (Schultz, Izard, & Bear, 2004). A student who is emotionally dysregulated may perceive ambiguous body language from another student (e.g. a glance) as hostile and react with an angry verbal tirade. The delineation of CD subtypes has been one of the major advances in this area (Pardini & Frick, 2013).

Utility of Three-Tiered School-Based Public Health Models for Prevention, Early Identification and Intervention

Disruptive behaviour disorders among students present a significant challenge for schools. Students at-risk for or diagnosed with ODD and CD need to be identified early in the schooling process and provided supportive, often times intensive, services for them to be successful in the school setting. A promising model for identifying and intervening with students with or at-risk for ODD and CD is the use of a three-tiered public health model for social behaviour within the school context. Public health models within schools can guide prevention, early identification and intervention strategies for responding to student problem behaviours by concentrating on the behaviour and the environmental context in which the behaviour occurs (Sugai, Sprague, Horner, & Walker, 2000).

Within the three-tiered public health prevention model the levels are characterised by increasing intensity of interventions: (1) universal prevention which includes services or strategies delivered to the entire student population without regard to risk status, (2) selective interventions which targets specific subgroups of students based on the presence of an identified risk factor for the disorder and (3) indicated intervention which are more intensive and individualised are delivered to students demonstrating symptoms of a disorder (Stormont, Reinke, Herman, & Lembke, 2012). Tiered response models have been developed in educational settings that align with these tiered activities. Some fundamental premises of the tiered approach are that (a) all students can benefit from universal supports, (b) risk of progressing to more intensive service needs can be mitigated for many students by intervening earlier with less intensive supports and (c) non-response to less intensive services can help better identify those most in need of intensive support (Thompson, Reinke, & Herman, 2015).

The mostly widely recognised tiered model of support, and one that is used in Australia, is School-wide Positive Behaviour Interventions

and Supports (PBIS; Mooney et al., 2008). While school-based tiered models of support are more common in the United States than Australia, these models provide a guide for best practice. School-based public health-tiered model includes the use of evidence-based assessment and progress monitoring tools as well as implementation of evidence-based interventions and practices. School psychologists play a critical role in the implementation of tiered models of support in school settings as they are often highly trained in assessment, interpretation of data and evidence-based interventions (Vujnovic et al., 2014). Students presenting with signs and symptoms of ODD and CD can be readily identified and treated within schools using public health-tiered models. The following sections provide an overview of evidence-based screening and assessment practices that can be used within tiered models as well as evidence-based interventions to support students with or at-risk for ODD or CD.

Evidence-Based Universal Screening Measures to Identify Students with Conduct Problems

Identifying children in need of further intervention is crucial, as it is often considered the first step in the problem-solving process (Glover & Albers, 2007). Behaviour screening instruments have been recognised as technically adequate, efficient indicators of behavioural risk status. A short, simple screener allows school personnel to quickly and easily identify students who display behaviours that may be of concern.

There are currently two types of behaviour screening instruments that can be used in schools implementing tiered public health models. The first is universal screening, which is characterised by teachers rating all students within a school on a brief screening tool or set of items. While universal behaviour screening has the potential to be time consuming and costly, it is also the most systematic method of identifying students. The second type of behaviour screening used to identify at-risk students is a multiple-gated approach, where a small number of students are typically identified or nominated by classroom teachers, based on their behaviours in the classroom, before being evaluated with further behaviour measures. This method increases the potential for bias in referral and nomination, but saves time and cost, by not completing screeners on children with no observable behavioural concerns.

Because screening data is used to make educational decisions, it is imperative that screening tools are able to validly and reliably measure behavioural risk status. This can be evidenced by high internal consistency, test–retest stability and convergent validity with established screeners (Lane, Kalberg, Parks, & Carter, 2008). Moreover, suitable screeners have demonstrated ability to distinguish between students with and without risk of behavioural difficulties, are brief and easy to complete, and are of low cost in order to maximise the likelihood of utilisation in a prevention model. There are an increasing number of universal screening measures acceptable for use within a universal screening model, including the Behavioural and Emotional Screening System (BESS; Kamphaus & Reynolds, 2007), Student Risk Screening Scale (SRSS; Drummond, 1993) and the Social Skills Improvement System (SSIS; Gresham & Elliott, 2008). To provide an example, the BESS has Parent, Teacher and Student forms that can be used concomitantly to screen students for behavioural risk. BESS forms are scored on a 4-point Likert-type scale, range in length from 27 (Teacher Form) to 30 items (Student and Parent Forms), and reportedly take between 5 and 10 min to complete. The BESS yields one overall, norm-referenced score that assesses student risk as Normal, Elevated or Extremely Elevated. Those students who are found to be elevated or extremely elevated are then evaluated to confirm the risk using standardised rating sales. The SRSS and SSIS are very similar to the BESS. A briefer questionnaire devised by Australian researchers, specifically for identifying primary school children at risk for CD is also available. The Conduct Problems Risk Screen is a teacher and parent rated 7-item questionnaire that has demonstrated good reliability and validity (Duncombe, Havighurst, Holland, & Frankling, 2012).

The Systematic Screening of Behaviour Disorders (SSBD; Walker & Severson, 1992) is an example of a multiple gating system. The SSBD has a three-step process that begins with teacher nomination of students. Teachers rate the top five students in their classroom on externalising behaviours and internalising behaviours. These five students go onto the next gate which involves teacher completing standardised behavioural rating forms. Students found to have elevated risk are then observed to ensure only those students needing supports are identified.

School psychologists can help schools implement screening measures and identify students with elevated risk for ODD or CD. Screening can help to identify students that have not yet been brought to the attention of the school psychologist by a teacher or parent. In either case, the school psychologist would then use additional assessment measures to determine the severity of the risk among each student. Based on the findings of these additional assessment measures, schools can determine whether the students require selective or indicated services. The following describes assessment measures commonly used to further evaluate students identified by the screener (or by parent or teacher referral) to determine symptoms of ODD or CD.

Comprehensive Assessments of ODD and CD Symptoms

While not fully comprehensive we present here three commonly used systems for providing more detailed assessments of students who screen positive for ODD or CD risk. These include, the Behaviour Assessment Scale for Children, 3rd Edition (BASC-3), the Conners Comprehensive Behavior Rating Scales and the Achenbach System of Empirically Based Assessment (ASEBA). All three of these systems represent a suite of instruments for different informants (parent, teacher and student) to give comprehensive evaluations of student symptoms and functioning across the age ranges. All are widely used and have abundant psychometric literature to support their utility in accurately identifying youth with ODD and CD symptoms and functional impairments. As with any normative screening system, clinicians using these screeners must take care to ensure that any interpretation is made with caution, taking into account what is known about the normative sample and the characteristics of the individuals being screened.

The BASC-3 (Reynolds & Kamphaus, 2004) is a multisource and multidimensional assessment system that includes separate measures for self, parent and teacher respondents. Ratings generate a comprehensive report including broad scores of externalising and internalising symptoms as well as more focused symptom subscales such as conduct problems and aggression and a range of other aspects of functioning (social relations, self-perceptions, learning problems, etc.). The Conners 3rd Edition (Conners, 2008) includes both long (20 min) and short (10 min) versions for each informant and provides global and subscale scores including separate subscales for ODD and CD. It also offers a comprehensive assessment of ADHD-related symptom clusters as well a 10 item ADHD index score. Finally, the ASEBA (Achenbach, 2009; Achenbach & Rescorla, 2001) includes comprehensive parent, teacher and student across the age range. The scales include two broad dimensions (internalising and externalising), empirically based syndrome scores (e.g. rule breaking behaviour and aggressive behaviour) and DSM-oriented scores (e.g. ODD and CD). Because these assessments can be more time consuming (e.g. teacher reports may take 10 min to complete per students) and costly, they are used only with students who appear at-risk. These assessments provide a more comprehensive picture of the problem behaviours.

Evidence-Based Interventions to Support Students with Conduct Problems

School-Based Selective Interventions for Students at Risk for ODD and CD

Selective interventions for students at risk for ODD or CD involve the implementation of strategic and efficient supports matched to the lower

intensity of the behaviour problems shown for these students. Typically, selective supports are delivered in small groups to maximise resources and reserve more intensive supports for students with the most needs. Two examples are the Behaviour Education Program (BEP) and small group social skills instruction. An important caveat to note here, is that a body of literature has emerged suggesting that group interventions for youth with disruptive behaviour problems hold potential for deleterious effects, most notably deviant peer contagion training that can exacerbate the very problems that groups are intended to treat (see Dishion, McCord, & Poulin, 1999; Reinke & Walker, 2006). Peer contagion effects are more commonly documented with increasing age of students and can be mitigated to some extent with structure and behaviour management. When considering groups for students with conduct problems school psychologists should take into consideration deviant peer contagion and make sure to monitor whether it is occurring. If so, consideration should be given to dismantling the group and instead providing more individualised therapy.

The Behaviour Education Program

The BEP provides daily support and monitoring for students showing early symptoms of disruptive behaviours (Crone, Hawken, & Horner, 2010). BEP provides students with immediate and ongoing feedback using teacher ratings at intervals throughout the school. Behaviour expectations are clearly defined and students are provided both immediate and delayed reinforcement for meeting these expectations and daily goals. The daily rating reports are sent home each day to support parent involvement and home–school communication. The intervention is most effective with students needing selective level supports for problem behaviours maintained by attention (Mitchell, Stormont, & Gage, 2011), although, the programme can be adapted to support students who have problem behaviours that are maintained by escape. This programme has typically been used with students in early grades and middle grades (e.g. ages 5–14).

Small Group Interventions

Students with disruptive behaviour often lack essential social and/or coping skills to successfully navigate the school environment. A common strategy for equipping students with these skills is through group-based skills training. Evidence supports the effectiveness of this approach for students with conduct problems. We provide descriptions of two exemplars in this category: Coping Power and Incredible Years Dinosaur School.

The Coping Power Program (Lochman & Wells, 2002) is a group-based selective preventive intervention designed for students showing moderate disruptive behaviours at school and their parents. The original programme targets students of 10–12 years of age, although a version for older children has been developed and is currently being evaluated. Coping Power targets social competence, self-regulation and positive parental involvement. The student programme is delivered in small groups with session content that includes goal setting, anger management, perspective taking, understanding and identifying emotions, relaxation training, social-cognitive problem solving, coping with peer pressure and using positive peer networks. Coping Power has a parenting group component as well that is delivered focused on effective parent behaviour management training (described in more detail later). Coping Power has been shown to decrease delinquency and substance use as well as behaviour problems at school (Lochman et al., 2010; Lochman & Wells, 2002).

‘Incredible Years Small Group Dinosaur School’ Program

For younger children, the Incredible Years Small Group Dinosaur School Program (Webster-Stratton, Reid, & Hammond, 2004) is a selective programme for students in preschool and early years of schooling. Delivered in groups of 4–6 children in 2-h weekly sessions, the programme focuses on appropriate classroom behaviours, problem-solving strategies, social skills and emotional self-regulation skills. Incredible Years

also has a parenting group intervention that can be delivered concurrently (see later). Research indicates that the programme increases student prosocial skills, improves social competence and decreases aggressive behaviour (Webster-Stratton et al., 2004).

Indicated and Intensive Individualised Interventions for Students with ODD and CD

Given the known multicontextual antecedents to ODD and CD, supports for students with more serious and enduring behaviour problems often require multisystemic interventions and planning. In fact, some students may reach a point where their behaviour is not safe to others, requiring more intensive intervention. In this case, students may be placed in alternative school settings where a high level of structure and intensive interventions are delivered. For example, in the state of New South Wales there are 35 *Schools for Specific Purposes* offering placements for students with a behaviour or emotional disorder (DET, 2016a). Such is the demand for specialist behavioural placements that in New South Wales, the number of available places for students doubled within a 10-year period (DET, 2016b). School psychologists play a critical role in helping to determine when students require an alternative placement and when they can return to a less restrictive setting. For the purposes of this chapter, interventions will be described that can be used in regular as well as alternative school settings to support students at home and school and then conclude with descriptions of comprehensive school-based support team approaches.

Parent Behaviour Management

A mainstay for intervention supports for students meeting diagnostic criteria for ODD or CD, or even subthreshold symptoms, is parent behaviour management (PBM). PBM methods have been the subject of scores of randomised clinical trials, and several different PBM approaches have met rigorous criteria of many review groups for designation as evidence-based practices for ODD/CD. The Incredible Years (IY; Webster-Stratton et al., 2004), Parent Child Interaction Therapy (PCIT; Eyberg, Boggs, & Algina, 1995), Parent Management Training-Oregon Model (PMTO; Patterson, 1982), Triple P—Positive Parenting Program (Triple P; Sanders, 1999) are just a few of the well-established programmes in this category. Common across these interventions is the idea that effective home environments can mitigate many of the behavioural concerns associated with ODD and CD, especially when instituted early and consistently in development. These programmes support parents in developing clear expectations, increasing their positive interactions with children, using consistent and reasonable consequences, and developing family routines. These interventions are accessible and can be delivered by school psychologists who are trained in these methods.

Collaborative and Proactive Solutions (CPS)

The CPS approach to ODD and CD was first described in Ross Greene's (1998) book, *The Explosive Child*. Three key premises guide the CPS approach: (1) children with disruptive behaviours lack key cognitive developmental skills which interfere with their social and academic success, (2) attending proactively to these cognitive skill deficits will reduce misbehaviour and (3) solutions are best developed through a process of collaboration between children and adults. The CPS approach enhances more traditional cognitive behavioural or even PBM methods for intervening with ODD/CD by intentionally addressing the cognitive deficits that commonly contribute to explosive behaviours, namely cognitive inflexibility and frustration intolerance. School psychologists and teachers can implement CPS to support students with ODD and CD. A recent randomised trial found that CPS was comparable to PBM and both outperformed the control group (Ollendick et al., 2015).

School-Based Team Functional Assessments and Behaviour Support Planning

Intensive individualised school-based supports require a team-based approach and utilise all relevant data collected from universal screening and selective and indicated supports (e.g. office discipline referrals, attendance records, functional behavioural assessments, fidelity to implementation of intervention plans, progress monitoring data). Typically, behaviour support teams include participants with behaviour expertise such as the school psychologist, special educators, school counsellors and/or social workers, the student's teachers and parents.

Successful school-based teams develop behaviour support plans for students with disruptive behaviour problems based on functional behaviour assessments which involves systematic data collection about what the behaviour looks like, what happens just before the behaviour (i.e. the antecedent) and what happens after the behaviour (i.e. the consequence) (see Stormont, Reinke, Herman, & Lembke, 2012). Common functions of a behaviour include attention seeking (from adults and/or peers) or escape/avoidance of something (tasks or social situations). For example, recurrent aggressive behaviour may be preceded by aversive social interactions with peers (antecedent) that serves the purpose to end or escape the interaction (consequence and function). The assessment would also examine whether the behaviour occurs because of misinterpretation of social cues (such as hostile attribution biases that are common in youth with disruptive behaviours) and what skills the student lacks or needs to develop to be more successful in using adaptive social behaviours. An effective behaviour support plan would alter antecedents that trigger problem behaviours, teach the student how to use appropriate behaviour to access the same function and reinforce the new behaviour to help reduce problem behaviours in the future.

Managing Disruptive Behaviours in the School Context: An Australian Perspective

A number of innovative school-based programmes aimed at preventing and treating disruptive behaviour have emanated from Australia. One particular model is the CASEA initiative (*Child and Adolescent Mental Health Service [CAMHS] and Schools Early Action*) implemented widely across Victoria over the past decade. The overarching goal of the programme is to prevent serious behavioural disturbance, such as conduct disorder, in children through multisystemic intervention. This is achieved through the development of critical partnerships. Community mental health clinicians are brought into the school system to work with school counsellors and other school personnel to assist both teachers and families to manage difficult behaviour (Duncombe et al., 2014).

With a focus on early intervention, the CASEA programme targets children in the first 4 years of primary school. High-risk children are identified through a universal screening process. Once identified, students attend an 8-week group programme that draws upon existing evidence-based psychological interventions. Parents simultaneously attend an 8-week skills-based group programme. Groups are typically co-facilitated by a CAMHS clinician and the school counsellor. In the same term, teachers attend a 6-h professional development workshop focused on social–emotional skills and self-control. They also have access to private consultations with mental health clinicians from CAMHS to guide them in putting these skills into practice in their classrooms (Duncombe et al., 2014).

Whilst the broad aims and training components of CASEA are universal across the regions, the theoretical basis of the programmes varies somewhat with some programmes focusing more on behavioural approaches and others, on emotion-focused perspectives. The programmes adopted by CASEA are typically a hybrid of well-established

programmes such as Triple P (Sanders et al., 2008), Tuning into Kids (Havighurst & Harley, 2007), Fast Track (Conduct Problems Prevention Research Group, 2011), Promoting Alternative Thinking Strategies (PATHS; Greenberg, Kusche, Cook, & Quamma, 1995) and Integrated Family Intervention for Child Conduct Problems (Dadds & Hawes, 2006).

The CASEA initiative has partnered with major universities to evaluate child outcomes, with positive findings. On the basis of parent, teacher and child ratings at both treatment completion and follow-up, significant clinical improvements have been found for students partaking in the CASEA programmes for conduct problems, psychosocial impairment and social skills (Duncombe et al., 2014; Havighurst et al., 2014). Interestingly, in one comparison study, equivalent outcomes were found for groups using emotional-focused approaches—and those with behaviour-focused parenting programmes (Duncombe et al., 2014).

Another major Australian initiative is the Triple P-Positive Parenting Program, a well known, multilevel public health approach to parenting. The aim of Triple P is to improve emotional and behavioural problems in children at a population level (Sanders, 2012). Recognising that clinical treatment programmes alone do not reach enough parents to substantially impact upon mental health prevalence rates (Prinz & Sanders, 2007), Sanders and colleagues devised a large-scale population approach which moves through five levels of intervention: from broader, general strategies targeting the wider population, down to more intensive, focused interventions for high-risk families. Triple P advocates universal prevention strategies (e.g. positive parenting newspaper columns), blended with selected and indicated prevention strategies (e.g. group-based parenting programme) to assist parents in managing the emotional and behavioural health of their child. Social learning theory, which marries cognitive, behavioural and developmental models, informs programme content.

Schools play an integral part in the roll out of Triple P (Fives, Pursell, Heary, Nic Gabhainn, & Canavan, 2014; Sanders et al., 2008). For example, they commonly host: (a) large group seminars for parents that include up to three 90-min presentations (such as the Power of Positive Parenting), (b) small group parenting interventions run as five 2 h sessions delivered over a number of weeks (with each session followed by a telephone call from the group leader) and (c) intensive individualised services for complicated presentations. Staff can be trained and certified in delivering Triple P interventions. Triple P also offers a course (Indigenous Triple P) to help providers tailor programme delivery to indigenous communities in both Australia and Canada.

Triple P has a strong research base. A recent meta-analysis of 101 studies found medium effect sizes for social, emotional and behavioural outcomes in children. Each level of the Triple P programme had a positive impact on child outcomes and parenting practices also improved (Sanders, Kirby, Tellegen, & Day, 2014).

Practical Realities of Assessment and Management of DBDs in the Australian School Context: A Case Vignette

Presenting Concerns

Colette McPherson is the School Psychologist at St Kevin's Primary School. One afternoon she was visited by Mrs Wiggins, the Year 4 teacher, at the suggestion of the School Principal. Young Dillon Taylor had been sent to the Principal's office following a fight with another boy during PE class, ending with Dillon hitting the other boy with a cricket bat. Mrs Wiggins explained that Dillon had a long history of verbal stoushes with other students—and only last week he was involved with a disagreement over the ownership of a pencil case. While Dillon heatedly argued the pencil case was his, on investigation it became apparent that he had stolen the pencil case. Mrs Wiggins explained that there had been other incidents over the course of the year and that Dillon had become increasingly defiant and argumentative whenever she had reason to question him. Moreover, Dillon's difficult behaviour was

evident across many classes, with the Music, PE and Religious Studies teachers all reporting similar difficulties. Mrs Wiggins explained that she had previously spoken to the Deputy Principal, who said he had no doubts that Dillon would respond to firm management and strong use of the school discipline system, including the use of lunchtime and after-school detentions. In fact, Mrs Wiggins' observation was that the more she issued detentions, the worse things seemed to get. When asked about Dillon's school ability, Mrs Wiggins said that although he seemed quite able, she only saw glimpses of what he was capable of because he so rarely completed his work. Moreover, he was very frustrating to have in class because he frequently off-task, distracting other students and was always losing his belongings. After hearing the story of Dillon, Colette could see that Dillon's behaviour was indeed very difficult to manage and would require further assessment before she was in a position to offer constructive ideas about management. She told Mrs Wiggins that she would like to investigate things further and then would get back in touch with her. Before she left, Colette gave her a copy of the Conners' Ratings Scales to complete.

Assessment

In reviewing Dillon's school file, Collette discovered that Dillon had only started at St Kevin's last year. A review of reports from his previous school showed that he was a student who picked up his basic numeracy and literacy quite adequately, but was easily distracted, forgetful and had some 'playground difficulties'. He was listed as living primarily with his mother, as his parents had separated.

Colette's next job was to call in Dillon's mother to take a more detailed history. When Mrs Taylor arrived for the interview she said that since Dillon was born he had always been a 'difficult' baby. She said that the first word he said was "no", and that he always seemed to want things his own way. Just last week, when Dillon wanted to watch a different TV show to his younger sister Julie, he pushed her off the couch and threw the remote control across the room. Colette asked about what things she usually did to manage Dillon's behaviour outbursts. She explained that when Dillon was younger she had tried placing him on the 'naughty chair', but that never worked because Dillon refused to stay on the chair. More recently, she had become so frustrated that she shouted at him, threatened to take away his X-Box and on occasions had spanked him on the bottom out of sheer exasperation. In the end she almost never took away the X-Box as it seemed the one thing Dillon could do which kept him occupied and brought some peace to the family. When Colette asked about any previous assistance, Mrs Taylor said that she had seen a counsellor a few years earlier at the suggestion of Dillon's Year 2 teacher because of his poor behaviour at school. However, she only saw the counsellor twice, saying that he seemed to blame her for Dillon's problems and didn't offer any practical suggestions for managing him. Surprisingly, she said that the things that infuriated her the most were not the verbal defiance or the fights with his sister, but that Dillon seemed so disorganised and was constantly losing the things that she was working so hard to provide for him, such as school books and pencil cases. Before finishing her interview with Mrs Taylor, Colette asked her to complete a Conner's Parent Rating Form.

Colette was now very curious to meet Dillon in person. When Dillon came into her office he initially appeared very guarded. Colette realised that all Dillon's previous meetings with adults were probably because he was in trouble for one thing or another. She carefully explained to Dillon that her job as the School Psychologist differed to all the other adults he had met before—that she wasn't there to get Dillon into trouble or punish him, but rather to work with him to figure out some ways to help make his life go better. Once Dillon understood this he seemed to relax a little. Colette noticed that Dillon was quite fidgety and she had to work quite hard to keep Dillon's focus on the task at hand. However, she discovered that when prompted he was able to articulate his own side of the story quite well. Dillon said he didn't know why he 'always did

stuff wrong' but he knew that sometimes he just 'loses it' and then regrets it later. He was able to acknowledge that he knows it is wrong to hit other people, but that sometimes he just feels so fired up and he lashes out without even thinking. When Colette asked about the most recent fight during PE class Dillon explained that the other boy was clearly 'out' in cricket; that the PE teacher didn't see it because he was looking away at the time; and that no-one ever listens to him anyway. When she asked about the pencil case incident, Dillon acknowledged that he had lost his own pencil case and thought that if he took another kid's pencil case, then he wouldn't get in trouble for losing his own. "Mum would go crazy if I went home and told her I lost my pencil case again" Dillon explained. Dillon went on to say that mum was always getting angry at him—even at times when Julie had actually been the one at fault.

Formulation and Diagnosis

With information from multiple sources, it appeared to Colette that a coherent picture of Dillon was beginning to emerge. It was helpful for her to hear that Dillon's behavioural difficulties occurred across various contexts (i.e. home and school) and dated even back to being a 'temperamental toddler'. However, Dillon's temperament alone was not sufficient to explain his current behaviour. Dillon's long-term pattern of temper outbursts, defiance, angry and resentful behaviour coupled with his arguments with peers, teachers and parents left Colette feeling confident that Dillon's behaviour fell within the range of what many people would call an Oppositional Defiant Disorder. She saw some patterns emerging around his outbursts—specifically, his difficult behaviour emerged at times when he had a difference of opinion with other people or when he had misplaced some of his belongings. As such, she believed that much of Dillon's difficulties could be traced back to two key skills that he had yet to adequately master: the skill of conflict resolution, the skills of managing his own belongings/materials. But Colette had an additional concern. She had witnessed for herself just how fidgety and restless Dillon was in her office. Coupled with reports from Mrs Wiggins and Mrs Taylor about his impulsiveness, distractibility and general disorganisation, Colette believed that Dillon had an attention deficit disorder which no one had previously acknowledged. Profiles on the Conners' Rating Scales from both Mrs Taylor and Mrs Wiggins showed very elevated levels of impulsivity, executive functioning difficulties and oppositional behaviour. While this didn't tell Colette anything she didn't already know, she took some comfort in knowing that the 'numbers' backed up her own clinical observations. However, Colette was reluctant to use diagnostic labels such as ODD or ADHD for Dillon at this point. She was concerned that using these labels might stigmatise Dillon within the school system rather than help garner support from the team of significant adults in his life. There was one final component of Colette's formulation which she saw as integral to how to understand Dillon's behaviour. Both Mrs Wiggins and Mrs Taylor had clearly demonstrated their own devotion and concern for Dillon. However, in the absence of informed and targeted strategies to help Dillon they were resorting to some unhelpful strategies about managing his behaviour. The school's approach to punish Dillon for his misbehaviour did nothing to teach him alternate strategies or skills for managing himself differently in future. Instead, it seemed to reinforce a belief that he was a 'bad' kid who couldn't control himself. Moreover, Mrs Wiggin's good intentioned, but often ineffective approach to managing Dillon left him (and indeed her) feeling more out of control. Colette thought these were things she could definitely do something about.

Intervention

Colette's intervention plan revolved around three broad areas—school-based interventions, initiation of an early intervention programme and outside referral.

1. *School-based intervention*: Colette chose to start her intervention with Dillon. In a one-on-

one interview she told him that she believed that there were a few things they could work on together that would greatly reduce his problems at school—specifically, learning to stop and think about the best option before acting, learning some new ways to sort things out when he had some dispute with other people, and learning to be better at not losing his things. Colette said that as a School Psychologist these were all skills that she was well equipped to help him with. Dillon said that while he didn't mind trying out some new ideas, he didn't think it was fair that he got in trouble for things that weren't his fault. Colette suggested they think up some things that his teachers could do instead of give detentions, which would actually help Dillon practice and learn his new skills. After some discussion they came up with one idea for each skill area that they wanted to improve. In relation to learning to stop and think before acting, they decided to ask his teachers to give Dillon a 'secret sign' of a finger tap on his desk when they noticed the very early signs of an escalation. When a teacher gave the secret tap on the desk, it was a reminder for him calm down and think before acting. At this point Dillon could also ask his teachers if he could 'go to the toilet' as his cue back to his teachers that he needed some additional time out to calm down. Colette told Dillon that she could teach him some strategies to help him calm down. In relation to being better at organising his belongings, they decided to ask Mrs Wiggins to help by providing an afternoon checklist of things that Dillon needed to take home, and bring back again the next day. Following her session with Dillon, a key part of Colette's plan involved meeting with all his teachers to get them on board not only with her formulation, but the newly developed interventions to help Dillon learn new skills. She informed them of Dillon's resolve to learn some new skills and instructed them of role they could play in proactively working with Dillon to avoid further meltdowns, rather than just issuing detentions after the meltdowns happened.

2. *An early intervention programme*: But what of Dillon's need to learn better conflict resolution skills? He was certainly not the only student at St Kevin's who had some peer relationship difficulties. Dillon's referral energised Colette to make a priority of establishing a social skills group, where students could come together to learn and practice a range of skills to help them cope with the challenges of the social domain. Although she had always believed that such a group had a vital role to play at St Kevin's, in the constant busyness of the school environment she never got around to making it happen. Colette put aside some time for later that week to write a proposal to her School Principal to introduce a screening system for students with behavioural difficulties, and an associated early intervention group.
3. *Outside referral*: Colette was well aware that Dillon's behaviours were not solely a school-based problem and that they were likely to respond well to parent-based interventions. She was also aware that in her role as a School Psychologist she simply didn't have time to carry out all the family-based work required for children with behavioural and emotional difficulties in the school. Fortunately, Colette had established a good relationship with the team at the local Child and Adolescent Mental Health Service (CAMHS), where there was a psychologist, social worker and child psychiatrist. There was often quite a long waiting time to get an appointment, but that was just a reality she had to work with. She rang Mrs Taylor and suggested that she make an appointment at the CAMHS—not only to help Mrs Taylor develop some better strategies for dealing with Dillon's behaviour at home, but also make a more comprehensive assessment of his attention problems and offer further help with management of that.

Summary and Extension

Disruptive behaviours present a major challenge for school personnel. Fortunately, decades of research have led to detailed understandings about

common developmental pathways that contribute to risk for these problems and innovative and effective interventions to minimise these risk factors and alter these predictable developmental trajectories. Although originally many of the evidence-based practices and developmental theories focused on family and community contexts to the neglect of schools, increasingly schools are recognised as critical settings for mitigating student risk and promoting resilience. Many assessment and interventions are now available to be used by school personnel in their efforts to support students with disruptive behaviours.

The remaining challenge in providing comprehensive school-based service models is how best to disseminate these practices to ensure that school personnel are prepared to deliver them with high quality and fidelity as intended. The next generation of school-based services will need to attend to these practical concerns and use methods from implementation science that will maximise the impact of the interventions.

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Test Yourself Quiz

1. It has been argued that the DSM criteria does not accurately capture the full picture of the female expression of aggression. What does this mean with regards to available treatments—are they relevant and appropriate for girls with disruptive behaviour problems?
2. What are the crucial characteristics that differentiate between an Oppositional Defiant Disorder and a Conduct Disorder diagnosis?
3. As a practitioner what co-morbidities would you be alert for in a child referred for behavioural issues?
4. We are guided by the United States with many of the gold standard assessments and treatment approaches. What can you take from this chapter that might be adopted for use within the Australian system?
5. What is the Collaborative and Proactive Solutions approach and how does it depart from standard behavioural management approaches?

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Evidence-Based Assessment and Intervention for Anger in School Psychology

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The Problem of Anger

The lay public has a great interest in childhood and adolescent anger. An online Google™ search for the terms "anger" and "children" at the time of writing this chapter produced links to more than 168,000,000 pages devoted to this topic. A search for the terms "anger" and "adolescents" in Google™ resulted in more than 58,400,000 pages. People throughout the world care to know about anger in children. Anger is a central problem faced by school psychologists in Australia. Thielking (2006) reported that 70% of school psychologists surveyed indicated that they spend considerable time supporting students with anger management issues.

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Despite the public interest, psychologists have failed to show a corresponding interest in studying anger. G. Stanley Hall (1899), one of the founders of psychology, noted the sparse attention anger received by psychologists of his time and said, "The psychological literature contains no comprehensive memoir on this very important and interesting subject (p. 516)."

Across generations, psychologists have mentioned the relative lack of attention devoted to anger. Because anger has received less attention than other emotions, some authors dubbed it the "misunderstood" (Tavris, 1982) or "the forgotten emotion" (Kassinove, 1995). DiGiuseppe and Tafrate (2007) argued that clinicians and researchers focus on the problem of violent behavior, but not the angry emotions that precede it. To support their argument, they cited the lack of a diagnostic category in the *Diagnostic Statistical Manual of Mental Disorders IV* (DSM-IV; American Psychiatric Association, 2004; DSM-5, 2013).

Defining and Diagnosing Anger

Anger is often confused with terms such as aggression, hate, hostility, and irritability. These constructs differ, yet they often serve as synonyms. This confusion prevents the field from making progress. A good example is irritability, which is often seen as a lowered threshold for the arousal of anger or aggression. However, authors often

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use irritability interchangeably with anger, and items on measures of irritability are identical to items assessing anger (Toohey and DiGiuseppe, 2016). Aggression is an overt behavior enacted with the *intent* to do harm or injury to a person or object. Hostility is a *personality trait* evidenced by cross-situational patterns of anger with verbal or behavioral aggression; it is an *attitude* of resentment, suspiciousness, and bitterness (Buss & Perry, 1992) that is characterized by a desire for revenge (Mikulincer, 1998). We lack a distinction between anger and hate. The lack of boundaries between these anger-related constructs reflects the inchoate and rudimentary level of our understanding of this construct and obstructs further study.

DiGiuseppe and Tafrate (2007) noted considerable disagreement concerning the definition of anger. They identified multiple definitions provided by DiGiuseppe, Tafrate, and Eckhardt (1994), Kassinove and Sukhodolsky (1995), Kennedy (1992), Novaco (1994), and Spielberger (1988) and integrated these to propose a single definition (DiGiuseppe & Tafrate, 2007):

> Anger is a subjectively experienced emotional state with high sympathetic autonomic arousal. It is initially elicited by a perception of a threat (to one's physical well-being, property, present or future resources, self-image, social status or projected image to one's group, maintenance of social rules that regulate daily life, or comfort, perceived sense of loss when comparing the self-state with that of others), although it may persist even after the perceived threat has passed. Anger correlates with attributional, informational, and evaluative cognitions that emphasize the misdeeds of others and motivate a response of antagonism to thwart, drive off, retaliate, or attack the source of the perceived threat. People communicate anger through facial or postural gestures, vocal inflections, aversive verbalizations, and aggressive behaviour. One's choice of strategies to communicate anger varies with social roles, learning history, and environmental contingencies.

Spielberger's (1972) distinction between state and trait emotions has become an important idea in the psychology of emotions and in the study of anger. State emotions represent individual episodes of an emotion, and traits refer to the frequency and intensity with which one tends to experience the emotion. Spielberger's (1988) theory predicts that people who are high on trait anger will (1) experience the state of anger more frequently (2) and more intensely, (3) experience anger as a response to a wider range of provoking stimuli, (4) express anger more negatively and cope poorly with anger, and (5) experience more dysfunction and negative consequences of anger in their lives than those low on trait anger. These five hypotheses concerning the relationships between state and trait anger apply similarly to children and adolescents (Quinn, Rollock, & Vrana, 2014).

Diagnostic Criteria

The long-term consequences of frequent anger and chronic or unregulated outbursts can include academic difficulties, substance abuse, conduct problems, and aggressive behavior (Dahlen & Martin, 2006). It is not surprising that anger has become a common target for prevention and intervention, despite the sparse research supporting such efforts. A common belief is that anger represents a developmentally appropriate and healthy response that motivates an individual to change their environment by protecting their individual needs. Although evolutionary theory supports the notion that all emotions have some function (see DiGiuseppe & Tafrate, 2007), anger—as all other emotions—can be dysfunctional and cause considerable difficulties for youth, both interpersonally and academically.

All versions of the DSM have relied on Wakefield's (1992) definition of psychopathology, which specifies that a behavior or emotion must be both harmful and dysfunctional to be considered "disturbed." DiGiuseppe and Tafrate (2007) reviewed the literature and reported evidence to support the notion that anger can be harmful and dysfunctional and thus can be conceptualized as a disorder. However, no diagnostic categories exist for anger disorders. However, we propose that taxonomy does matter. The existence of a diagnostic category for anger problems would help clinicians describe dysfunctional anger and facilitate effective communication among clinicians (Gould, 1987). Although the DSM-5 (APA,

2013) does not (yet) include any anger disorders, several authors have suggested potential categories and criteria (Eckhardt & Deffenbacher, 1995; DiGiuseppe & Tafrate, 2007).

Several disorders currently included in the DSM-5 could serve as proxies for an anger diagnosis because of the changes made to this new edition. Many youth with anger problems could meet the revised diagnostic criteria for intermittent explosive disorder. These criteria now include verbal, as well as physical and aggressive outbursts. However, anger is not included as a necessary symptom or precursor of aggression. Nevertheless, almost all people who meet the criteria for this disorder have experienced strong disruptive anger. The revised definition of oppositional defiant disorder (ODD) in the DSM-5 represents the closest description of an anger disorder in the manual. It now includes symptoms such as angry/irritable mood, argumentative/defiant behavior, and vindictiveness. These changes emphasize that the disorder reflects both emotional and behavioral symptomatology associated with anger. Finally, the DSM-5 includes a new disorder, disruptive mood dysregulation disorder (DMDD), which describes youth who exhibit persistent irritability and frequent episodes of extreme behavioral dyscontrol, tantrums, and periods of depression. The usefulness of this diagnostic category has yet to be determined.

Although these diagnostic criteria might better represent anger problems than those in the DSM-IV, they still fail to capture the suffering of many youth with dysfunctional anger, such as latent unexpressed reservoirs of anger that distracts from cognitive processing. The lack of a diagnostic taxonomy for anger and aggression contributes to the confusion surrounding anger and has inhibited research in assessment and treatment of anger problems.

Developmental Considerations for Anger

Psychologists need to consider whether anger is harmful and dysfunctional within a developmental context. A child's developmental stage influences the experience and expression of anger and can guide clinical interventions (DiGiuseppe & Tafrate, 2007).

Infants have minimal frustration tolerance, as they need to eat, sleep, and be changed, but cannot complete these tasks independently. As such, they must rely upon others to ameliorate their frustrations. Expressions of anger serve a communicative function for caregivers (Fox & Calkins, 2003). For example, infants with a soiled or wet nappy use facial expressions and vocalizations to express frustration and communicate their desire for someone to change it (Stenberg, Campos, & Emde, 1983). When infants get angry, caregivers respond by removing barriers to their goals, thereby reducing the anger experience and negatively reinforcing their infants' behavior (Berkowitz, 1983).

As children mature, their anger responses and triggers might change. They begin to experience negative feelings toward the source of the emotion, whether it is an individual or an object. The frustration that they experience from a blocked goal can lead them to experience anger and to aggress beyond the primarily vocal expression observed at an earlier stage (Berkowitz, 1993). During the preschool stage, temper tantrums are quite common (Potegal & Davidson, 2003) and reflect frustration-instigated aggression.

As children grow, their interest in peers increases, and they become better skilled at processing social cues and information. Identifying the social context of situations and the intentions of others' actions becomes more important to them. Consistent with these developmental changes in social understanding, older children experience more anger in relation to perceived threats to or reductions in social status and self-worth. Triggers for anger now become others' insults or attempts to make them look socially incompetent. Adolescence show increases in relational aggression (Prinstein, Boergers, & Vernberg, 2001); they express their anger by damaging the peer relationships of those at whom they are angry (Lochman, Powell, Clanton, & McElroy, 2006).

Self-regulatory skills also increase with development. Self-regulation represents a key component of anger interventions and involves teaching

clients to control their attention to events and behavioral impulses (Bell & Deater-Deckard, 2007; Calkins & Bell, 2010; Posner & Rothbart, 2000). Research on the development of self-regulation in early childhood assesses children's ability to delay gratification in order to attain a larger or more desirable goal, such as toy, treat, or gift. Self-regulation is measured by the number of times the child tries to get the desired object (Kochanska, Coy, & Murray, 2001) or the level of anger intensity that the child expresses during the wait (Cole, Teti, & Zahn-Waxler, 2003). The ability to wait for a desired goal and shift attention away from the goal is an important developmental skill that helps children control anger (Peake, Hebl, & Mischel, 2002). One's frequency and intensity of anger decreases by using attentional regulatory strategies, and these skills greatly increase from infancy to toddlerhood (Grolnick, Bridges, & Connell, 1996).

A normative decline in anger reactivity occurs from toddlerhood to preschool (Raikes, Robinson, Bradley, Raikes, & Ayoub, 2007). Also, anger becomes harder to regulate rises from the end of elementary school years and peaks at the age of 13 or 14. Anger then decreases until age 18 (DiGiuseppe & Tafrate, 2011) and continues to decline through adulthood (DiGiuseppe & Tafrate, 2004). Although we usually define anger and other disorders as displaying extreme levels of behavior, about 25 % of children and adolescents experience anger that interferes with their functioning (DiGiuseppe & Tafrate, 2011). It is also important to consider children's language development and its effect on anger. Children gradually learn to assign words to their emotions and associate those words with the action of the caregiver in ameliorating distress. A task of adolescence is to internalize this association for self-soothing rather than remaining dependent upon the caregiver. The development of language facilitates the ability to encode and interpret social cues and to generate and evaluate possible solutions to the triggering event.

The age of onset of aggressive behavior problems influences prognosis; the earlier aggression appears, the more likely it is that the child will display severe, persistent, and violent antisocial behaviors (Barry & Lochman, 2004a). Childhood onset of aggression often leads to the diagnosis of ODD or CD. Onset in adolescence could result from an interaction between social, familial, and personal factors (Barry & Lochman, 2004b). When youth experience anger and express aggression, they often receive negative reactions from teachers, parents, and peers. These reactions could be experienced as rejection and can lead children to perceive hostile intentions by others and increase their anger (Barry & Lochman, 2004b). Students with anger and aggression problems are at risk for academic and social difficulties (Reinke & Herman, 2002). Their lack of academic progress negatively affects their bond to the school, leading to tension and conflict with teachers and peers.

Anger in the Schools: Presentation and Consequences

Anger and aggression correlate with mental health problems and academic difficulties. Excessive anger is experienced both by youth with externalizing disorders and by those with internalizing difficulties, like depression and anxiety. Over time, these challenges can result in the development of antisocial behavior patterns (Nock, Kazdin, Hiripi, & Kessler, 2006). The behavioral punishments employed in school settings for angry and aggressive behavior can also influence children's educational experience. If students are suspended or expelled from school, they cannot actively learn. Their relationships with teachers can become negative. Their anger will likely solicit negative reactions from teachers and other school personnel. This can lead to a sense of alienation from the school and the academic environment and put angry children at risk for associating with antisocial and delinquent peer groups (Lochman, Boxmeyer, Powell, Barry, & Pardini, 2010). As aggressive children develop more severe academic difficulties, their chances of being retained or dropping out of school prematurely increase (Anderson, Vostanis, & O'Reilly, 2005). In addition to the negative influence that excessive anger has on children, others, including

classmates, siblings, parents, and teachers, could also be affected, as angry children could aggress against those in their environment. Aggressive children could also develop overwhelming surges of angry emotion that looks like aggression to observers. This pattern of behavior typically reflects a paucity of acquired tools for identification of unmet needs and the inability to initiate appropriate action to meet these needs.

Nelson, Finch, and Ghee (2012) developed a theoretical classification system for anger and aggression that describes six progressive stages of disturbance that help clinicians with the diagnosis and intervention planning. These levels and corresponding school-related behaviors appear below:

Level 1: *The impatient/annoying/irritating child*. These students become angry when they do not get their way. They complain and hold their breath. This group's anger is described as "controlled" because they do not directly express their anger.

Level 2: *The stubborn/dramatic child*. These students display the symptoms of ODD. They fail to comply with directions and engage in verbally abusive behaviors that usually precede physical aggression. However, they do not typically engage in this aggression.

Level 3: *The threatening child and the beginning of damage*. These students experience more frequent and intense anger compared to the first two groups and threaten to injure others. Although their primary aggressive behaviors are also verbal, they begin to engage in destructive behaviors toward objects. However, their behavior is "controlled," as they choose to damage less valuable things, indicating a recognition that destruction of objects could result in serious penalties.

Level 4: *The "taking it up a notch" child*. These students intentionally destroy objects and threaten others with aggression with an object or weapon. No actual physical aggression or harm to others occurs. These youth have some control, as they do not allow their verbal aggression or destruction of objects to escalate into harm against people.

Level 5: *The assaultive child*. Students at this level of anger and aggression have moved from verbal aggression and the destruction of objects to physical assault of others. Although they believe that their physical aggression is minor, more serious, accidental injuries can occur. Clinicians need to determine whether the resultant injuries to others represent intentional or accidental outcomes.

Level 6: *The violent child*. The most serious group of children experience anger and aggressive outbursts sufficient to intentionally cause serious harm. These students represent a danger to others and themselves.

Anger and Aggression

Professionals often use the term "angry" to describe aggressive behavior (Sukhodolsky, Golub, Stone, & Orban, 2005). This inability to differentiate anger and aggression could result from the perception that all aggressive behavior has anger as a precipitate. Although not all aggression is preceded by anger, much of it is. Psychology might overestimate the empirical link between anger and aggression. However, they are nevertheless linked, so clinical strategies often target both for change.

Research supports an association between anger and physical aggression among adolescents (Sukhodolsky & Ruchkin, 2004). However, the strength of this relationship remains debatable, as only 10 % of anger episodes lead to physically aggressive outcomes in normal adults and college students (Averill, 1983). We do not know the percentage of aggressive acts preceded by anger in clinical samples or in adolescents, let alone in disturbed youth. Tafrate, Kassinove, and Dundin (2002) found that the degree to which anger episodes resulted in aggressive behavior varied by an individuals' trait anger. Individuals with high trait anger reported that one out of every five (20 %) of their anger episodes resulted in aggression, which was three times higher than the rate reported by individuals with low trait anger. Anger could also lead to other forms of

aggression, such as passive aggressive, relational, instrumental, and verbal aggression (DiGiuseppe & Tafrate, 2004, 2007, 2011). As Averill (1983) noted "the implicit assumption seems to be that anger is important only if it leads to aggression" (p. 1147). However, youth who hold their anger in can be just as impaired (DiGiuseppe & Tafrate, 2007, 2011).

Although the relationship between anger and aggression is complex, it is clear that they are linked (DiGiuseppe & Tafrate, 2007). According to DiGiuseppe and Tafrate (2007), "anger appears to be a critical mediator in many forms of aggression. Treating the aggression without treating the anger that mediates it will likely lead to a relapse of the aggressive behaviours" (p. 91). They proposed that anger functions as part of an affective motivational system that generates several strong motives. These motives act as the driving force behind aggressive or adaptive behavior. As children develop, their aggressive behavior is reinforced by the successful removal of unpleasant stimuli and parental tolerance of their behavior, which in turn fosters more aggression in their children (DiGiuseppe & Tafrate, 2007). Thus, the presence of frustration or threat to one's resources or social status causes an emotion that activates motives to control or eliminate the threat. Individuals who possess high levels of trait anger will have stronger urges to aggress, as they will have practiced the response more frequently (DiGiuseppe & Tafrate, 2007).

A model that links anger and aggression is frequently evident in the school mental health literature. Children and adolescents who bully have learned to use aggression to control and cause distress to others (Pepler, Jiang, Craig, & Connolly, 2008). Aggressive behaviors have been associated with maladjustment for both aggressors and victims (Card, Isaacs, & Hodges, 2007). Anger and aggressive behaviors are associated features of numerous externalizing disorders in children, including ODD, CD, and attention deficit/hyperactivity disorder (ADHD) (Eckhardt & Deffenbacher, 1995). Anger has also been linked to school violence (Furlong, Chung, Bates, & Morrison, 1995). Many interventions targeting youth aggression have focused almost exclusively on the behavioral aspect of the problem, while ignoring the emotional experiences of youth.

Anger Assessment

Good treatment begins with good assessment. It is important for clinicians to have a thorough understanding of a problem in order to develop a treatment plan. Although a full review of anger and aggression assessment instruments is beyond the scope of this chapter, we would like to highlight some major findings in the field. The confusing definitions mentioned and the blurred boundaries between anger, hostility, and aggression have caused serious problems in assessment. Content analysis of anger and aggression measures indicated that they all assess different characteristics of anger and aggression. Thus, the problems that one identifies in a referred youth can be a function of the test used, rather than the youth's presenting symptoms (Avigliano, 2015; DiGiuseppe & Tafrate, 2011).

Anger measures also differ greatly in their psychometric properties. Avigliano (2015) reviewed the majority of anger and aggression measures for children and adolescents. He assigned each instrument a score based on Hunsley and Mash's (2007, 2008) proposed criteria for empirically based assessment (EBA). No two instruments include the same number or type of subscales. Thus, each instrument is unique in the characteristics of anger that it measures. A literature search resulted in few narrowband instruments that focus exclusively on anger and aggression in youth. Thus, Avigliano (2015) also included subscales measuring anger and/or aggression on large, omnibus psychological measures. Three raters assigned scores to each instrument for each of the criteria of the EBA. The highest rating was assigned if the scale met the criteria for "highly recommended." In each category evaluated, a test needed to obtain a rating of at least adequate (A) on every criterion and good (G) on the majority of the criteria evaluated. They summed the ratings so that each criterion contributed equally to the total score.

The following six tests were designated as "highly recommended":

- The Adolescent Psychopathology Scale—Anger Scale (APS; Reynolds, 1998)
- The Anger Regulation and Expression Scale (ARES; DiGiuseppe & Tafrate, 2011)
- The Beck Anger Inventory for Youth (BANI-Y; Beck, Jolly, & Steer, 2005)
- The Behavioural Assessment System for Children 2—Anger Scale (BASC-2; Kamphaus & Reynolds, 2007)—for both the parent- and self-report forms
- The Novaco Anger Scale and Provocation Inventory (NAS-PI; Novaco, 2003)
- The Reynolds Adolescent Adjustment Screening Inventory—Anger Scale (RAASI; Reynolds, 2001)

These tests meet the most rigorous standards in conforming to the empirically based assessment criteria and we recommend them for assessing anger in school-aged children. All of these tests were normed on US samples, and the distribution of scores could vary in different countries.

The same criteria were used to evaluate aggression instruments. The following five tests met these criteria and are designated has "highly recommended":

- The Adolescent Psychopathology Scale—Aggression Scale (APS; Reynolds, 1998)
- The Aggression Questionnaire (AQ; Buss & Warren, 2000)
- The Clinical Aggression Scale—Parent- and Teacher-Report forms (CAS-P and CAS-T; Halperin & McKay, 2008)
- The Conners Comprehensive Behavioural Rating System, Parent-, Teacher- and Self-Report forms (Conners CBRS; Conners, 2008b)
- The Conners 3rd Edition Parent- and Self-Report forms (Conners 3; Conners, 2008a) (Avigliano, 2015)

Thus, these instruments are recommended when psychologists wish to assess aggression in school-aged children. Again, all of these tests were normed on US samples, so their quality as evidence-based assessments might vary in Australian populations.

Anger Interventions

The research testing the effectiveness of psychotherapies for anger and aggression predominately includes behavioral or cognitive-behavioral therapies. Few studies have tested interventions based on other theoretical models of therapy. As a result, we warn the reader of the quote by the astronomer Carl Sagan "Absence of evidence is not evidence of absences." Our description of anger treatments and the research to support them focuses on such cognitive-behavioral therapy (CBT) approaches. One can speculate on why the empirical literature lacks studies to support the efficacy of treatments based on other theoretical models. Nevertheless, one rare example is an intervention based upon neuropsychology of developmental theory by Brewer and colleagues (2015).

We recognize that considerable research supports the efficacy and effectiveness of behavioral parent training as the treatment of choice for child and adolescent externalizing disorders. In addition, using cognitive interventions to target the irrational beliefs and emotional difficulties that interfere with parents' compliance with behavioral treatment improves the already effective parent training (see David & DiGiuseppe, 2016 for a review of these issues and an empirically supported treatment manual). Parenting interventions represent the first tier of treatments for youth with anger and aggressive problems.

Using individual and group therapies that focus on teaching skills to youth are second-tier interventions. However, we will not cover such first-tier interventions because they are not practical for school-based practitioners. Consult the chapter in this book by (Sanders, Healy, Grice, & Del Vecchio, 2016) for a discussion of working with parents.

Cognitive-Behavioral Anger Programs

Several cognitive theories of anger and aggression propose that thoughts play a central role in anger and aggression (Fives, Kong, Fuller, & DiGiuseppe, 2011). CBT-based anger interventions conceptualize aggressive behavior as influenced by heightened emotional and physiological arousal, cognitive distortions, and a weakness in social and problem-solving skills (Cole, Treadwell, Dosani, & Frederickson, 2013). CBT targets numerous cognitions, images, appraisals, and information processes, high levels of physiological arousal, behavioral patterns of poor communication, problem-solving skills, unassertive behavior, and poor conflict management skills (Deffenbacher, 2011). CBT packages include different combinations of affective education, cognitive restructuring, and social and problem-solving skills instruction and rehearsal of new behavioral skills (Deffenbacher, 2011; Sukhodolsky, Kassinove, & Gorman, 2004). Thus, the many anger intervention programs differ widely in design.

Anger results from an interaction between a triggering event, an individual's pre-anger state (Deffenbacher, 2011), the appraisal of the event, and coping resources. Anger involves interaction between physiological and cognitive processes that motivate behavioral responses (Deffenbacher, 2011). Involved cognitions might include an exaggerated sense of being violated or harmed, externalizing the blame for the event that triggered the anger, misattributions of hostile intent, malevolence, condemning or labeling of the perceived transgressor, overgeneralization, minimizing one's own personal responsibility, and thoughts of retaliation. Most CBT-based programs include similar components such as arousal management, cognitive restructuring, problem-solving, and the development of prosocial alternative behavior (Cole, 2012).

For example, Cole (2012) found that *Learning How to Deal with Our Angry Feelings*, a six-session, school-based program for children ages 7–11, significantly improved children's understanding of their anger and led to reductions in teacher reports of problem behavior. The program components included identifying emotions, thinking differently to calm down, and using relaxation strategies. Sofronoff, Attwood, Hinton, and Levin (2007) conducted a study evaluating the effectiveness of a clinic-based, 6-week CBT intervention for anger management in a sample of elementary and middle-school children with Asperger syndrome. Forty-five children (43 boys, ages 10–14) and their parents were randomly assigned to an intervention or wait-list control. Participants were assigned to pairs, and each pair completed the program with two therapists. Treatment components included affective education, coping and relaxation training, cognitive restructuring, and social skills training. The intervention included a parent group, covering the same topics. Children who participated in the intervention demonstrated significant increases in the number of effective strategies that they generated compared to controls. Parent-reported anger episodes decreased significantly over time and were maintained at follow-up. Furthermore, parents reported increased confidence in managing their children's anger, also maintained at follow-up. Data from the parents and teachers indicated some generalization of skills to the home and school environment (Sofronoff et al., 2007).

Again, working with a preadolescent clinical sample, De Rubeis and Granic (2012) examined the relationship between changes in mother-child interaction and children's externalizing behavior after participation in a clinic-based CBT program. Children (ages 7–11) and their mothers participated in a 12-week combined parent management training/cognitive-behavioral therapy (PMT/CBT) program. They explored whether dyadic regulation (i.e., dyad members' ability to work in affective harmony) influenced the process of change in the child's aggressive behavior. Participants learned to identify and modify their aggressive behaviors and cognitions through behavior management, role-playing, and cognitive restructuring. Parent training included learning the principles of contingent praise for success, problem-solving, and monitoring. The results indicated that the treatment was effective in reducing externalizing symptoms for the entire sample. Furthermore,

regulated dyads showed greater reductions in externalizing symptoms from pre- to post-treatment than dysregulated dyads.

Typical cognitive-behavioral anger management protocols target the three constructs associated with anger: the affective experiences, cognitions associated with anger, such as attributions of blame and rumination focused on other blame, and behavioral components of anger, including social withdrawal and aggression (Feindler & Engel, 2011; Sukhodolsky et al., 2005). LeSure-Lester (2002) developed such a three-component CBT anger management program that taught adolescent victims of abuse to identify their emotions, engage in relaxation and calming self-talk, and rehearse alternative ways to cope with anger. The program consisted of 13 sessions implemented in a group home. Overall, this program led to stronger post-treatment reductions in aggression and increased compliance with school rules and teachers' instructions than did an indirect therapy focusing on open-ended discussions.

The *Teen Anger Management Education* (TAME) program emphasizes the cognitive components of anger and teaches adolescents to identify, control, and prevent anger and aggression and to effectively problem-solve (Feindler & Engel, 2011). TAME consists of ten sessions and can be implemented in school or residential settings (Feindler & Engel, 2011). A similar program, *Aggression Replacement Training* (ART) teaches prosocial behaviors, anger modification strategies, and moral reasoning training to motivate the youth to implement learned skills. ART consists of ten sessions designed for school-based implementation (Currie, Wood, Williams, & Bates, 2012). Studies have shown that ART significantly decreases antisocial behavior (Feindler & Engel, 2011).

Although research indicates that CBT-based anger management programs are effective, it remains unclear which components of anger treatments account for the treatment effects (Feindler & Engel, 2011). The few dismantling studies that exist provide mixed support for the cognitive component in these programs. For example, Down, Willner, Watts, & Griffiths (2011) compared the efficacy of a CBT anger management group to one focused on personal development and found that both groups improved in their anger expression and coping. Adolescents in the CBT group reported that they enjoyed learning techniques such as negotiation, distraction, assertiveness, walking away from conflict, and challenging negative appraisals.

Social-Cognitive Treatment Programs

The treatment programs addressing childhood anger, aggression, and externalizing disorders based on the social-cognitive model or social information processing theory provide the most evidence for effectiveness. Generally, these interventions provide instruction in the steps of social information processing, place an emphasis on cognitive skills and thinking processes, and guide children in structured tasks to apply cognitive skills in social situations (Wilson & Lipsey, 2007). These programs work to modify cognitive processes and teach new cognitive skills, distinguishing them from behavioral social skills training programs, which focus on the rehearsal of new behaviors (Wilson & Lipsey, 2007).

One treatment program that follows this model is *Anger Control Training* (ACT). Like other anger management programs, this intervention consists of three modules: arousal management to target intense and atypical anger experiences, social problem-solving training focused on cognitive restructuring, and social skills training to address maladaptive anger expression (Sukhodolsky et al., 2005). ACT was designed for school-based implementation and ranges from 15 to 30 sessions (Eyberg, Nelson, & Boggs, 2008).

This program has been implemented across different settings, including schools, community-based mental health centers, and correctional facilities. One study demonstrated that participants in an ART group showed greater reductions in aggressive behaviors and impulsivity and increases in coping, social skills, and self-esteem as compared to moral education and no-

treatment control (Feindler & Engel, 2011). Another study implemented with a sample of juvenile delinquents demonstrated ART's efficacy in teaching social skills, improving anger management skills, and reducing self-reported anger and recidivism rates (Goldstein, Nensen, Daleflod, & Kalt, 2004).

Sukhodolsky and colleagues (2000) found that a school-based group ACT program effectively reduced aggressive and disruptive behavior and increased children's attempts to control their anger. However, the actual occurrence of anger did not diminish, and the experience of anger did not change. Eyberg and colleagues (2008) determined that the ACT program is "probably efficacious" because two randomized control trials demonstrated that it was superior to no-treatment controls in reducing disruptive behaviors.

Sukhodolsky and colleagues (2005) conducted a dismantling study on the social problem-solving and social skills training components of ACT. The social problem-solving component targeted adolescents' social information processing skills through cognitive techniques such as cognitive restructuring, attribution retraining, and the generation of alternative solutions. The social skills training component used behavioral approaches such as rehearsal, modeling, and corrective feedback. Both treatment components were delivered separately and were equally effective in reducing aggression and conduct problems and improving interpersonal relations. About 50 % of participants in both conditions were judged as clinically improved or recovered at post-treatment. Participants maintained the gains at 3-month follow-up. However, consistent with their treatment focus, problem-solving skills training was more effective in reducing hostile attribution biases, while social skills training was more effective in increasing anger control (Sukhodolsky et al., 2005). These results stress the importance of incorporating social-cognitive components in anger management programs to target irrational thoughts that might cause anger to persist.

Another empirically supported treatment for aggressive children developed by Lochman and colleagues (2008) is the school-based *Anger Coping Program* (ACP); ACP is an 18-session, group-administered program that addresses the social-cognitive distortions and deficits of children with aggression. Topics covered include goal setting, the role of thought in controlling emotions, the advantage of taking another's perspective, monitoring and controlling physiological signs of anger, the use of self-statements to guide coping, and problem-solving techniques to resolve conflicts. Later sessions focus on demonstrations and rehearsal of the problem-solving model. During the late 1980s and early 1990s, several large-scale outcomes studies conducted in school districts supported the effectiveness of the program (Lochman, Curry, Dane, & Ellis, 2008). Students who completed the program displayed clinically significant reductions in aggression, improvements in problem-solving skills, increases in self-esteem, and improvements in academic achievement. They maintained these gains at both 1-year and 3-year follow-ups (Lochman et al., 2008). ACP appears as a "probably efficacious" treatment for childhood aggression on the Division 53 (Society of Clinical Child and Adolescent Psychology) empirically supported treatments website (Lochman et al., 2008).

Recent studies have investigated the *Coping Power Program* (CPP), which is an extension of ACP developed by Lochman and colleagues (2008). CPP is implemented in schools and includes group sessions, individual therapy, parent training, and teacher consultation (Lochman et al., 2008; Powell et al., 2011). The program includes 34 child sessions and 16 parent sessions delivered in the child's school over 18 months (Lochman, Powell, Boxmeyer, & Jimenez-Camargo, 2011 Lochman & Wells, 2003; Powell et al., 2011). The child component of the intervention includes sessions on goal setting, emotional and physiological arousal awareness, coping self-statements, distraction techniques, relaxation methods, organization, study skills, perspective taking, attribution retraining, social problem-solving, and refusal skills for resisting peer pressure. The parent component includes training on skills such as operationalizing adaptive and maladaptive behavioral targets in their children, positive reinforcement, prompting

effectively, establishing rules and expectations, applying consequences for undesirable behavior, and strengthening family connections (Lochman & Wells, 2002a). Research studies of CPP include a parent component, and it would be best if practicing school psychologists included this component.

Several outcomes studies support the effectiveness of CPP. Lochman and Wells (2002a) evaluated the effectiveness of the program with fifth- and sixth-grade boys with high levels of aggression and disruptive behaviors. Participants were randomly assigned to either the CPP child component, the CPP parent and child components, or no treatment. In both active treatment groups, CPP influenced children's social information processing, locus of control, temperament, and perception of their parents' consistency. At a 1-year follow-up, CPP reduced children's delinquent behaviors, substance use, and maladaptive school behaviors compared to controls (Lochman & Wells, 2003, 2004). Path analysis indicated that changes in the children's internal locus of control, perceptions of their parents' consistency, attributional biases, perceptions of others, and beliefs about the effectiveness of aggression mediated the observed treatment outcomes (Lochman & Wells, 2002a). These results demonstrated that CPP produces changes in children's behavior through modification of their dysfunctional cognitive processes.

Lochman and Wells (2002b) determined that CPP could serve as a preventative intervention when delivered at the middle-school transition to high-risk students. Jurecska, Hamilton, and Peterson (2011) demonstrated that CPP produced a significant reduction in problem behaviors associated with hyperactivity among middle-school boys and girls. Finally, Lochman, Wells, Qu, and Chen (2013) found that CPP continued to produce reductions in children's aggressive and problem behaviors from baseline through 3 years post-intervention. Specifically, children who completed CPP continued to improve in their expectations that aggression would lead to negative outcomes, demonstrating that modifying a key component of social-cognitive processes is linked with long-term outcomes.

The *Tools for Getting Along* (TFGA) program represents another school-based, social-cognitive program for treating childhood externalizing behaviors. TFGA is based on a social information processing model that consists of 27 lessons intended for older elementary students. It is designed for intervention or prevention.

The lessons focus on problem-solving strategies, modifying self-statements to guide decision-making, and building automaticity in using these strategies (Smith, Lochman, & Daunic, 2005). An initial investigation of the program found that high-risk students who participated in the TFGA program were more similar to their typically developing peers than a no-treatment comparison group (Smith, Lochman & Daunic, 2005). A subsequent randomized control trial of TGFA demonstrated that children who participated in the program showed significant improvements in social problem-solving knowledge, executive functioning, and rational problem-solving, and reductions in proactive aggression and anger (Daunic et al., 2012). These gains were maintained at a 1-year follow-up (Smith et al., 2014).

Stoltz and colleagues' (2013) created the *Stay Cool Kids* program, an individualized intervention intended for school settings also based on the social-cognitive approach. In the first phase of this program, the child's individual thoughts and behaviors are evaluated. In the second phase, children complete exercises targeting self-perceptions, social cognitions, anger management, and aggressive behavior in conjunction with parent and teacher consultation. A randomized control trial of this program found that the intervention significantly reduced children's proactive and reactive aggression and improved their self-perceptions. Teachers rated more treatment completers within the normal range or the subclinical range of problems than children in the control group. Significantly fewer of the treated children were rated in the clinical range compared to non-completers (Stoltz et al., 2013).

Currie et al. (2012) conducted a 2-year longitudinal study evaluating the effectiveness of ART in an Australian youth justice custodial setting. Twenty juvenile offenders (ages 18–20) participated in this 10-week intervention. Participants

indicated reductions in aggressive behaviors, cognitions, and impulsivity and improvements in social problem-solving. Although the participants' aggressive behaviors, cognitions, and impulsivity fell within the clinical range at pre- and post-treatment, by 6-month follow-up, their scores fell within the normal range. No significant changes were reported in custodial workers' rating of the participants' behavior at all data collection points (Currie et al., 2012).

van Manen, Prins, and Emmelkamp (2004) also evaluated the effectiveness of a generic social-cognitive intervention for anger and aggression based on social information processing compared to social skills training and a wait-list control. This RCT with a Dutch sample indicated that both the social-cognitive and the social skills training programs were efficacious, but children in the social-cognitive condition improved more on outcome measures at completion and follow-up. Thus, targeting the children's deficits and distortions in social-cognitive processes instead of teaching them behavioral skills alone improved treatment efficacy for boys (van Manen et al., 2004).

Chen et al. (2013) explored the efficacy of the *Williams Life Skill Training* (WLST; Williams & Williams, 1997, as cited in Chen et al., 2013), a 9-week CBT program focusing on improving competence in social-cognitive information processing, with Chinese young male violent offenders (ages 14–24) in a prison setting. Participants were randomly assigned to treatment and control—treatment as usual groups. Treatment components included affective education, cognitive restructuring, assertiveness training, problem-solving skills, and social skills training. Results indicated that participants in the intervention group showed significantly larger reductions in aggressive behavior, anger, hostility, and impulsivity compared to controls (Chen et al., 2013).

Neuropsychological Interventions with Seriously Disturbed Adolescents

Brewer et al. (2015) formulated a clinical intervention for adolescents and young adults who present with mental health problems and who were at high risk for aggression in the form of homicide, self-harm, or suicide. The clinical rationale for this intervention was that young people with these risk factors, particularly antisocial personality traits or disorder, also represent a greater risk for depression, self-harm, and suicide due to drug and alcohol misuse. Such youth are difficult to treat due to disengagement and multiple complex needs.

Neuropsychological developmental principles provided a theoretical rationale for this intervention. Conduct disorder, antisocial personality disorder (ASPD), and instrumental violence (psychopathy) are associated with brain structural abnormalities (Barkataki, Kumari, Das, Taylor, & Sharma, 2006; Huebner et al., 2008; Yang et al., 2005, Yang, Raine, Colletti, Toga, & Narr, 2009; Yang, Raine, Narr, Colletti, & Toga, 2009). These abnormalities fall within regions mediating emotional and learning processes, particularly where early insult to the prefrontal neural regions often leads to the spontaneous development of antisocial behaviors such as pathological lying, irresponsibility, shallow or flattened affect, and a lack of guilt and remorse (Anderson, Bechara, Damasio, Tranel, & Damasio, 1999). The amygdala specifically is primarily implicated in the emotional response to fear-inducing stimuli and is critical to the development of stimulus-response conditioning (Glenn & Raine, 2009). Such conditioning is crucial to the development of socialization in children so that they learn to avoid engaging in behaviors that have the potential to harm themselves or others (Blair, 2007a; Glenn & Raine, 2009). Structural abnormalities of the amygdala are associated with the development of the callous, instrumental aggression that appears to be a hallmark of ASPD (Blair, 2007b).

Similarly, frontal lobe dysfunctions are correlated with hypofrontality (Reyes & Amador, 2009). Hypofrontality represents a constellation of neuropsychological deficits including verbal intellect and executive function (Dolan & Park, 2002). These deficits implicate prefrontal neural compromise including reduced activity in the orbitofrontal cortex (Birbaumer et al., 2005), a region that mediates emotional control. Hypofrontality of this region is associated with

poor emotional regulation, particularly during frustrating or stressful situations.

The clinical intervention was based upon characterizing anger as a fundamental bioregulatory device with which people are equipped to maximize survival (Damasio et al., 2000). Survival incorporates the abilities to adapt and control internal and external environments for the purpose of predictability. As such, anger can be framed as an instinctive immune system—like emotional arousal that effectively energizes an organism to act via the "flight or fight" response to neutralize the impact of a perceived threat or, indeed, to provide the motivational resources to facilitate the acquisition of the tools necessary for survival. The degree of arousal (mediated by subconscious limbic processes) is hypothesized to be proportional to the degree of perceived threat (mediated by conscious prefrontal processes). The functional release of arousal returns the organism to a position of homeostasis or "being at rest"; directed action is analogous to the impact of the parasympathetic nervous system. Should the functional release be thwarted (e.g., when a child is powerless to stop parental assault) or remain unconscious (e.g., immature language development preventing the mediation of focused action), the anger becomes compounded and experienced as anxiety. As the foreboding sense of loss of control increases, further emotional resources are generated to "manage" the instinct for release rather than attend to the primary threat, thereby establishing a negative feedback loop. A key clinical aim is to teach young people to regulate this process based on the principle that increased knowledge of their emotional self, and the situations that caused them to be in crisis is the most efficient way of restoring a sense of control. In effect, they are fast-tracked into self-consciousness, a key goal of adolescence that is often compromised when emotional material becomes overwhelming.

Brewer and Murphy (in press) formulated a six-session clinical intervention for angry youth who were disengaged from clinical treatment for primary psychopathology. Engaging angry students more generally presents considerable difficulty, particularly when the impact of their mental illness, substance abuse, acquired brain injury, or intellectual difficulties exacerbate their personality traits. A key task was to address the impact in these young peoples' misperception whereby the labeling of their "antisocial" or "behavioral" problems was essentially reframed to reflect a description of their behavior as expressions of the students' distress rather than imply a primary labeling of their core self as "bad" or "mad." Aggressive behavior represents a functional response to personal distress, rather than a focus for sanctions. In this context, relying upon anger "management" techniques proves less effective relative to assisting students to reframe and understand the source and function of their anger. In turn, identification of their key survival responses enables a release of anger as a valuable motivational resource for returning to a natural and healthy distress-free state. Core components of the intervention incorporate practical examples of how to assist difficult students with acquiring basic principles of emotional intelligence, including recognition and articulation of the emotions and the establishment of a structured self-identity.

Brewer et al. (2015) incorporated their intervention with a cohort of youth with psychosis who were disengaged from treatment and who were at high risk for homicide and/or suicide. They developed and described an intensive case management (ICM) service model and compared the impact of their intervention in referrals to the youth mental health service in Melbourne, Australia (Early Psychosis Prevention and Intervention Centre, EPPIC), to treatment as usually subjects (age 15–24 years). In a naturalistic stratified quasi-experimental real-world design, they assessed key performance indicators of service use plus engagement, and homicide and suicide attempts were compared between EPPIC TAU and ICM, while psychosocial and clinical measures were compared between ICM referral and discharge. Referrals were predominately unemployed males with low levels of functioning and educational attainment. They were characterized by a family history of mental illness, migration, and early separation, with significant trauma and history of violence and forensic attention. ICM treatment improved psychopathology and psychosocial outcomes in high-risk patients and

reduced risk ratings, admissions, bed days, and crisis contacts. In this real-world study, implementation of an intensive case management stream and its associated treatment module within a well-established first-episode psychosis service demonstrated significant improvement in key service outcomes. This approach reflects a unique anger treatment program tailored to address carefully mapped individual vulnerabilities associated with dysregulation of primary angry emotion. This program reminds us that one size does not fit all, and the unique characteristics of the clients might require different anger management strategies to fit their disorder. The reliance in this program of harnessing the function of anger, or indeed emotion more generally, means that it can be adapted for intervention in less severe psychopathology. In addition, psychologists need to evaluate executive functioning and the nature of psychopathology before considering an intervention.

Meta-analyses of Anger Treatments

Several meta-analyses and literature reviews have evaluated the overall effectiveness of cognitive-behavioral interventions for externalizing symptoms such as anger, aggression, hyperactivity, and impulsivity. One of the first meta-analyses by Dush, Hirt, and Schroeder (1989) demonstrated that self-statement modification led to significant treatment gains for children with behavior disorders. Robinson and colleagues (1999) conducted a meta-analysis of 23 studies to determine the effectiveness of cognitive-behavioral modification for hyperactivity, impulsivity, and aggression in school-based settings. The mean effect size across all studies was 0.74, with 89% demonstrating greater gains for the treatment group compared to the control group. Bennett and Gibbons (2000) meta-analysis of 11 studies also demonstrated that CBT interventions had a small to moderate effect in decreasing antisocial behavior in children.

A number of reviews of the research have also appeared. Rosato et al. (2012) reviewed results from four randomized controlled trials (RCTs), which demonstrated that CBT with youth ages 10–16 resulted in significant reductions in anger and aggression (mean ES = 0.58). Two of the RCTs also demonstrated sustained reduction in anger at follow-up (Rosato et al., 2012). They concluded that CBT has substantial empirical support as a psychotherapeutic approach for aggression.

Wilson and Lipsey (2007) found that school-based social processing interventions for aggressive behavior had a significant effect size of 0.21. However, social information processing, anger control, perspective taking, and behavioral social skills training interventions were not significantly different in their outcome. This indicates that social-cognitive programs are effective but that the cognitive and behavioral components of these interventions might contribute similarly to treatment outcomes. Clearly, much evidence supports the effectiveness of social-cognitive interventions for childhood externalizing disorders. However, it is unclear whether these effects exceed those of behavioral treatments alone.

Sukhodolsky et al. (2004) conducted a meta-analysis of treatment outcome studies of CBT for anger-related problems in children and adolescents, including 21 published and 19 unpublished reports. Treatment settings included schools, outpatient, inpatient, and correctional facility. The authors identified four categories of CBT including (1) skill development programs targeting overt anger expression by applying modeling and behavior rehearsal; (2) affective education programs focusing on covert anger experience via emotion identification, self-monitoring, and relaxation; (3) problem-solving programs targeting cognitive deficits and distortions through attributional training, self-instruction, and consequential thinking; and (4) eclectic, multimodal treatments that incorporated multiple procedures. The mean effect size for all programs fell in the medium range (Cohen's $d = 0.67$), suggesting that CBT is an effective treatment for anger-related problems in youth. Skill development and eclectic treatments yielded significantly greater effect sizes in comparison to affective education, suggesting that treatments teaching actual behaviors

could be more effective than nonbehavioral interventions. Specific therapeutic techniques related to larger effect size included feedback, modeling, and homework (Sukhodolsky et al., 2004).

Gansle (2005) conducted a meta-analysis exploring the effectiveness of 20 school-based anger interventions and programs. The mean effect size was 0.31, suggesting small to moderate reductions in anger. Most interventions included in the analysis used multicomponent treatment packages. Commonly used components included discussion, role-play, practice, and modeling. Similar to Sukhodolsky et al.'s (2004) analysis, they found that interventions that included more behavioral activities were associated with greater treatment strength. Gansle (2005) coded the interventions as either self-focused or socially focused. Self-focused strategies included emotion recognition and labeling skills, identification of cues or triggers for emotional responses, preparation for anger-provoking situations, and cognitive self-control skills. Socially focused strategies included communication skills, social skills, and problem-solving skills. Socially focused interventions were more effective than self-focused interventions (Gansle, 2005).

Özabacı (2011)) conducted a meta-analysis of studies exploring the effectiveness of CBT treatments for children and adolescents demonstrating high levels of violence. Treatment settings included schools, homes, clinics, and correctional facilities. Six studies were included in the meta-analysis, yielding an overall effect size of −0.094, suggesting that CBT is only somewhat effective in treating violence among youths. Similar to the findings of the previously described meta-analyses (e.g., Gansle, 2005; Sukhodolsky et al., 2004), treatment packages that included teaching behaviors were more effective compared to treatments targeting internal constructs related to aggressive behaviors (Özabacı, 2011).

Matjasko et al. (2012) conducted a systematic meta-analysis of youth violence prevention programs. Program types included school, family, treatment-specific, and community-based interventions. Of the 52 studies included, 6 meta-analyses were treatment-specific prevention programs utilizing CBT. These meta-analyses reported moderate effects on youth violence, with effect sizes ranging from 0.36 to 0.70. Further, moderator analysis indicated that programs incorporating a CBT component demonstrated larger effect sizes than programs without a CBT component or with a behavioral component only. Findings specific to school-based programs (11 meta-analyses and 4 reviews) indicated moderate to strong effects on violence-related outcomes. The majority of these programs included classroom curriculum-based interventions, peer mediation/conflict resolution, and conduct behavior modification (Matjasko et al., 2012).

Candelaria, Fedewa, and Ahn (2012) conducted a meta-analysis exploring the effects of anger management programs on children's social and emotional outcomes. The authors included 38 published and 22 unpublished studies with 3386 school-aged participants. Anger management programs included coping skills training, emotional awareness and self-control, problem-solving, relaxation techniques, and role-play or modeling activities. The mean effect size of −0.27 indicated small to moderate effects. The authors reported that the problem-solving component of CBT was one of the most effective approaches for reducing negative outcomes. However, they found that when combined with other components, such as coping skills and role-play, the overall mean effect was smaller (Candelaria et al., 2012).

A recent meta-analysis conducted by Barnes, Smith, and Miller (2014) examined the effectiveness of school-based CBT interventions in the reduction and prevention of aggressive behaviors among children and youth in the USA. They included 25 studies with 30,309 participants. The mean effect size was small (–0.14), and the mean weighted effect size was moderate (–0.23), suggesting some support for the efficacy of school-based interventions for reducing aggressive behaviors. Furthermore, universal interventions had significantly larger effect sizes compared to small group interventions (Barnes et al., 2014).

Although these results are encouraging, several conclusions can be drawn. There are a number of different anger interventions that have been

found to be effective. The effect sizes remain in the low to moderate range. This means that there is a great need to find more effective treatments. There does not appear to be one agreed upon program that has risen to prominence over the others. Many programs appear to work. Although school prevention programs have been successful, their effect is rather small as might be expected. It is important to know which programs could be delivered in schools and which require a clinic setting. Although some studies were carried out in schools, the rest were group interventions that could potentially have been administered in schools during the school day. No meta-analyses or individual studies have explored whether the setting, school or clinic, makes a difference for the efficacy of the programs.

Australian School-Based Interventions and the Role of School Psychologists

There are literally thousands of international school-based interventions, many of which have been evaluated. Some are broadly based with an impact on anger, e.g., social and emotional learning (SEL: Collaborative for Academic, Social and Emotional Learning (CASEL), 2005). Others are specific for anger, e.g., Supporting Tempers, Emotions, and Anger Management (STEAM: Bidgood, Wilkie, & Katchaluba, 2010). While the world leader in interventions is the USA, Australian researchers have developed an array of effective programs, many of which have been critically reviewed (Neil & Christensen, 2007). Furthermore, of 50 randomized controlled trials of international school-based interventions, 6 programs were identified as translatable to an Australian context (Bayer et al., 2009). Though none are specific to anger, many effective interventions are primarily for behavior, including anger control.

The importance of children's well-being is recognized at the policy level. Australia has both federal (Slee et al., 2009) and state-led (MindMatters, 2009) school-based intervention programs. KidsMatter and MindMatters are mental health and well-being initiatives set in primary and secondary schools, respectively. Their whole-school approach is heavily influenced by the settings approach of the World Health Organization with its focus on creating healthy environments (Weare & Nind, 2011). The National Safe Schools Framework also provides Australian schools with a vision and a set of guiding principles to safeguard emotional well-being and to prevent bullying (Australian Government: Department of Education and Training, 2011). Finally, each state and territory has its own anti-bullying policy.

Australian schools are well resourced with over 2000 psychologists across the states. The Australian Psychological Society (APS, 2016) provides clear guidelines on effective delivery of school psychological services. The guidelines identify four areas for school psychologists:(1) Direct service: the assessment of a student's cognitive, academic, and social-emotional and behavioral functioning. Individual and group interventions include counseling, behavior modification, and whole-school programs.(2) Indirect service: advising or consulting with teachers, parents, and other stakeholders.(3) Whole-school service: psychological prevention, intervention, and post-intervention practices to support whole-school populations.(4) Systems service: coordination of teachers, parents/carers, and external agencies such as mental health services, or social service organizations, to address student psychological needs.The guidelines further suggest that school psychologists are well placed to develop crisis management policies that require external relationships with emergency services and mental health professionals. They may also provide defusing and debriefing to the school community following a critical incident (http://www.psychology.org.au/publications/inpsych/school/). The APS website also includes a range of "tip sheets" for parents and teachers helping children manage conflict resolution and aggression.

With respect to home-grown evidence-based programs that address anger specifically, Doing Anger Differently (DAD; Currie, 2004) is a school-based 10-week long group program for

young adolescent boys who display high levels of anger and aggression. It involves a series of percussion exercises as a nonverbal metaphor for young boys' rage. Other treatment components include guided psychoeducation and discussion, anger diaries, problem-solving, and consequential thinking. The trilevel intervention includes the experience of anger and its influence on action, the formation of meaning and identity resulting from anger and aggression, and the emphasis on group work and the interpersonal basis of anger. The exercises help provide a bridge between the body and speaking about the emotion. This bridge allows boys to speak where previously they have acted violently. The authors reported findings from two RCTs of DAD. In study one, participants (ages 12–15) with trait anger scores on the 70th percentile or above were randomly assigned to treatment or a wait-list control. Participants in the treatment group showed clinically significant and reliable reductions in trait anger and aggressive misbehavior, decrease in depression, and increase in self-esteem, all of which were maintained at 6-month follow-up. The second study evaluated the efficacy of the intervention when implemented by staff at a standard community setting. Adolescents (ages 12–15) were randomly assigned to treatment and control conditions. Participants in the treatment group demonstrated reductions in aggression, trait anger, and anger expression at 9-month follow-up (Currie & Startup, 2012).

In summary, a robust framework exists for support and intervention by school psychologists within the Australian education system.

Cultural Considerations in Assessment and Intervention (Australian Focus)

School psychologists need to be acutely aware of cultural diversity and the ways in which cultural differences affect mental health. Within Australia, two broad cultural groups require consideration: Aboriginal and Torres Strait Islanders (Indigenous) and those who are culturally and linguistically diverse (CALD). Key issues that require sensitive understanding include individual and institutionalized racism and the influence of trauma on students with refugee backgrounds (Department of Education and Communities, 2011). In general, both groups face many stressors that increase the likelihood of the development of emotional, social, or behavioral problems, and thereby impede or threaten normal development (Parliament of NSW, 2009; Trussell, 2008).

One issue relevant for Indigenous mental health includes *a sense of spiritual*, *cultural*, *and community well-being* (Department of Health and Ageing, 2010), and it is important that Australian school psychologists understand this. Furthermore, disparities between the education outcomes of Indigenous and non-Indigenous students are widely recognized (Doyle & Hill, 2008) and impact the effectiveness of intervention programs. These disparities include reduced attendance, retention rates, and academic performance (Doyle & Hill, 2008). Models and guidelines for the development of cultural competence in working with Indigenous students have been developed by the Australian Psychological Association (Purdie, Dudgeon, & Walker, 2010). The guidelines incorporate culturally competent knowledge, values, skills, and attributes when addressing the psychological and emotional well-being needs of Indigenous students.

In a comprehensive study, the Western Australian Aboriginal Child Health Survey (WAACHS) found that 70% of families of Indigenous children had experienced three or more major life stressors in the 12 months prior to the survey, and 22% of children had experienced seven or more such events (Zubrick et al., 2005). Moreover, these children were significantly more likely to experience mental health problems. The findings were commensurate with other research demonstrating that Indigenous children's exposure to family stressors increases their vulnerability to a range of risks to well-being (Daly & Smith, 2003, 2005) and is coherent with the broader evidence base relating to risk factors for children's mental health (Dobia & O'Rouke, 2011; Raphael, 2000). Overall, the study found that 24% of aboriginal children between the ages of 4 and 17 years showed signs

of serious emotional or behavioral difficulties. The rate for non-aboriginal children was 15% (Daly & Smith, 2003).

Anger appears to be a salient problem for Indigenous children. The Australian Institute of Health and Welfare (AIHW, 2008) reported high levels of anger-related issues in Indigenous children and adolescents. Additionally, in a descriptive pilot study, Indigenous students were more likely than non-Indigenous students to experience high levels of anger in response to school situations and were more likely to destructively express their anger in a school setting (Boman, Mergler, Furlong, & Caltabiano, 2014).

Approaches to behavior management require particular sensitivity (Dobia & O'Rouke, 2011). When a proscriptive regulatory framework is relied upon rather than one that actively seeks to model and support prosocial behavior through cultivating positive relationships, miscommunication and misperception of Indigenous student behavior are increased (Harrison, 2008; NSW AECG & NSW DET, 2004; Partington & Gray, 2003). This can lead to behavioral escalation, disengagement from learning, and alienation from school. Ineffective behavior management policies and practices are particularly harmful for students with emotional and behavioral problems (Zubrick et al., 2006a).

Australia is a multicultural society. Over half of Australian immigrants have arrived from a non-English-speaking country. Together with their children, they constitute 40% of the country's population (Mitchelson, 2011). In their 2011 report, the Department of Education and Communities (DEC) further highlighted the stressors associated with migration and acculturation that interact with recognized risk factors for mental health and that lead to increased psychological distress (Mitchelson, 2011). Further, the report draws attention to the Melbourne *Good Starts* study (Correa-Velez, Gifford, & Barnett, 2010) that found that over their first 3 years of settlement, refugee youths' experiences of social inclusion or exclusion have a significant impact on their subjective well-being. There are high numbers of refugee children arriving in Australia with little to no formal schooling (Department of Education and Communities, 2011). No standardized interventions for these children exist when they enter local schools, and the experiences of children will be highly variable across teachers and schools (Davidson, Murray, & Schweitzer, 2008; Department of Education and Communities, 2011). Finally, the DEC report highlights the additional challenges that arise when the physiological effects of trauma and interactions with peers affect refugee children's school performance. The symptoms associated with experiences of trauma may include difficulty concentrating, memory disturbances, anxiety, and depression (Davidson et al., 2008; Department of Education and Communities, 2011). This constellation of behavioral, mood, and cognitive vulnerabilities reflects a barrier to the engagement and management of this vulnerable subgroup in specific anger intervention programs.

The DEC report highlighted a further commendable intervention. Here, the BRiTA Futures Primary School and Adolescent programs were developed by the Queensland Transcultural Mental Health Centre in 2003 to fill a gap in mental health promotion programs specifically designed to enhance protective factors and minimize risk factors in children from CALD backgrounds (Mitchelson, 2011). This program is founded upon a capacity building model of service delivery which links schools, community support and welfare organizations, and public sector health organizations. It is delivered by facilitators already located within schools, including psychologists. Modules include understanding and managing emotions, stages of conflict, and triggers and resolution strategies for building positive relationships and support networks.

To summarize, the existence of evidence-based programs specifically designed to target and manage anger-related behavioral disturbance in either Indigenous or CALD youth is scant. Moreover, the framework through which anger is perceived becomes a salient issue for intervention as has been highlighted previously (Brewer et al., 2015; Brewer & Murphy, in press). The principles underlying the Brewer et al. (2015) clinical program that targets anger-driven aggression in

young men with mental health problems can be applied more generally to both Indigenous and CALD youth and to mainstream school cohorts. Here, there is a role for individualized support by school psychologists to assist young people to understand the nature and role of their anger as a means for functional neurodevelopmental maturation rather than being a focus of "treatment" for "problem behavior." Indeed, the Brewer et al. (2015); (Brewer & Murphy, in press) program has been modified for delivery by school psychologists and staff generally. However, future research is required to build the evidence base of the effectiveness of program delivery.

Case Study of Multidimensional (Teacher, Parent, Student) Anger Treatment

Oliver is a 16-year-old boy attending a suburban high school in his junior year. He was a marginal student, but always managed to do well enough to avoid being flagged as an academic or behavioral problem. Although he spoke politely to the school staff, he was aloof and kept his distance. His anonymity ended when he started hitting the lockers that lined the hallway of the school. He banged and kicked the doors of a locker with great force and much noise. The teacher in the classroom nearest to him came over and yelled at him to stop. He immediately cursed something back at her but then seemed to realize that he had made such a racket, and he immediately stopped and sat on the floor with his back against the wall. The teacher asked him if there was a problem and he yelled, "of course," and then started muttering obscenities to himself. One of the teachers called the school psychologists, who arrived just as the next class period began and the hallway cleared of other students. The school psychologist, Dr. Lincoln, sat down on the floor next to Oliver. She was aware that talking to him while standing above him, looking down, might trigger a power struggle, more anger, and further reaction. She then said, "well you are at upset with someone, they must have done something really bad for you to get this mad," attempting to validate his sense of being transgressed upon. Once Oliver quieted down, Dr. Lincoln asked him if he would like to come to her office to calm down before he went back to class. He just nodded yes, and she helped him up, and they walked to her office.

Oliver reported that he had just snapped when a girlfriend told him that she was unable to keep a plan that they had made for the upcoming weekend. Oliver bit his lip and said that he had really overreacted to such a small problem but that he "just had enough disappointments in his life." Dr. Lincoln allowed him to talk about the day's disappointment and then asked him about other problems he was facing. Oliver said that he was having problems at home and that he was carrying around a great deal of resentment for some time. Dr. Lincoln got him to talk and their conversation revealed the following information.

Oliver was an only child. His father was a serious alcoholic and was drunk most nights when he came home from work. His father never hit Oliver, but he repeatedly made disparaging insults to Oliver, and said that Oliver was a loser and would never amount to anything. Oliver reported that he tried to avoid reacting to his dad's insults each night but that it was getting harder each day. Oliver's mother reacted to the father's alcoholism by not being home. She was involved in church and social activities each night and was never there. This pattern of affairs had been going on for many years, as long as Oliver could remember. Dr. Lincoln asked Oliver to complete the Anger Regulation and Expression Scale (ARES) and he complied. Oliver's total anger score was around the 80th percentile, which was not too high. However, many of his subscales were above the 95th percentile. These included the scaled scores on episode length, duration of anger, hurt, anger-in, resentment, rumination, revenge, passive aggression, and verbal aggression. It was notable that he had average scores on scope of provocations, physical aggression, covert aggression, bullying, and relational aggression and a lower than average score on impulsivity.

Based on these ARES scores, Dr. Lincoln developed a case conceptualization of Oliver's anger. Oliver had been having problems with his anger for many years, and each time he experienced

anger, the episode lasted for several days. Oliver did not become angry at many things, but was triggered by insults, social rejections, or threats to his self-image and esteem. When he became angry, he experienced anger, he had thoughts about how bad and unfair his life was, and about his peers having a much better life situation that he did. He also ruminated about his situation, resentments, and hurts. He had a desire for revenge, specifically to hurt those who had disappointed him. Oliver struggled to keep his anger in and usually had good self-control. He reacted to his transgressors by failing to cooperate with them and engaging in some passive aggressive behaviors. He purposefully violated his curfew to annoy his parents. He ignored all cores they assigned him; also, he would do poorly in school to upset his parents. Dr. Lincoln shared these results with Oliver, and he indicated that he thought the report correctly and adequately described his problems.

Dr. Lincoln validated Oliver's feelings about his parents' neglect and bad treatment. She did not stop to ask whether the negative automatic thoughts Oliver had about them were true or false. When he reported such a thought, she would say, "I do not know your parents. Tell me what they have done that makes you think that."

Next, drawing from the principles of Motivational Interviewing (MI: Miller & Rollnick, 1991), Dr. Lincoln tried to increase Oliver's motivation for change. She commented that she understood that Oliver had a reason to be angry, but she asked whether the anger helped Oliver accomplish his goals. They spent several sessions on this. Gradually, Oliver concluded that his anger rumination had prevented him from engaging in many social activities and school events and from working on school projects. He even concluded that because his anger resulted in these behaviors, he failed to be happy, sociable, and successful, thus contributing to his father's predictions coming true. He was making it a self-fulfilling prophecy.

During the next phase of the intervention, Dr. Lincoln helped Oliver think about alternative reactions to his parents' behavior. He might remain disappointed forever that his dad spoke so hostilely to him and that his mom dedicated such little time to him. These would be major disappointments in anyone's life. However, Oliver did not have to let his parents' actions define his behaviors and his life. He could think differently about their behaviors and feel and act differently. Dr. Lincoln then explored whether Oliver's dad's perceptions of Oliver had to be true. If his father believed that Oliver would be a failure, did that have to be true? Did Oliver have to believe it? Could Oliver feel differently than he did? In addition, could Oliver choose to behave in a way that would promote achieving his goals regardless of what his parents thought or did?

Oliver started to feel differently. He no longer thought that his identity and worth were linked to his dad's opinions or his mother's attention. He was a person who could have worth and work toward his goals regardless of what they did or thought. He resolved to try to think and act differently.

Although Dr. Lincoln could not meet with Oliver for long-term psychotherapy, she did make time to see him for a weekly 30-min session over the next month. She attempted to reinforce the ideas they discussed. Using a relapse prevention model, she also prepared him for future interactions with his father. Oliver engaged in rehearsing what he would think and do when his father insulted him again. They also anticipated his mother's future behaviors that would disappoint him. If he predicted that she would in fact act in those ways, he could consider multiple, flexible reactions that he could have to such behavior.

Oliver stayed in contact with Dr. Lincoln for the remainder of the school year. He became more responsive to others in the school, started to attend more events, and became more sociable. Over the next year, he continued to maintain his improvement. His parents continued to be critical and uninvolved in his life, and he learned to react to their treatment it in a more adaptive and effective way. A re-administration of the ARES showed that Oliver had reduced his total anger T score by 26 points, and his scores on the subtest of resentment, rumination, and revenge had fallen to within normal limits.

Future Directions

Research in the basic science of anger would advance if we could achieve professional agreement on the definitions of anger and its related concepts. As mentioned above, the existing anger measures fail to agree on the characteristics of anger that they assess. Thus, each scale measures anger in a different way. It would be best if we had agreement on the definition of anger and the characteristics of this emotion that are unique to it and differentiate it from other basic negative emotions. Anger is related to other emotional constructs such as hate, hostility, irritability, and resentment. These words often serve as synonyms but sometimes refer to separate constructs. Although these constructs are related, it would be helpful to have clear, separate, and precise definitions for them.

We have much less research to inform our understanding of anger than we do for other negative emotions, specifically anxiety and depression. We also do not have much research to inform our knowledge concerning the relationship between anger and aggression. Although most professionals believe that anger is a predictor or precursor of aggression, we do not know the exact nature of this relationship. There is clearly not a one-to-one relationship. We need more basic research to understand the nature of anger and the events and cognitions that trigger it. We need more of this basic research with children and adolescents. As noted above, each anger and aggression assessment instrument that a school psychologist could choose from measures a different set of characteristics, cognitions, and behaviors. We just do not have consensus on what matters. A strong science of anger will lead to translational research that will develop more sensitive assessment measures and treatments that are more effective.

Which Cognitions Precede Anger?

Research has indicated that attributions of hostile intent represent a risk factor for anger and aggression (Lochman & Wells, 2002a, 2002b). However, other theories have suggested that additional cognitive constructs also lead to anger. These include external attribution for negative automatic thoughts, irrational beliefs especially demandingness and condemnation of others, poor problem-solving skills, and the need to remain tough in the eyes of others. We would be better able to develop more effective CBT for anger if we knew how these cognitions are related to each other and to anger. These different cognitive variables might all represent part of one large latent variable and highly correlate with each other; if so, perhaps it would not matter which one is targeted in treatment. Perhaps one or more of these variables arouse anger more than the others do. If this was true, we could target the ones that are most predictive of anger. It is also possible that there are multiple cognitive paths to anger, and individuals differ in which beliefs arouse their anger. If this were true, we would need to develop better measures of angry thoughts so that we could individualize treatment based on the thoughts that were present in the specific person. A better scientific understanding of the relationship between cognitions and anger could lead to treatments that are more effective.

Which Treatments to Use

As noted above, most of the anger intervention programs that appear in the literature rely on treatment manuals that include modules that target affective arousal techniques such as relaxation, management, cognitive restructuring aimed at hostile attributions and dysfunctional beliefs, or problem-solving skills, and the rehearsal of behavioral skills such as prosocial and assertive alternative behaviors (Cole, 2012). These approaches to anger treatment have several limitations. First, treatment manuals focus each module for a specified, prearranged number of sessions. This could result in the therapist moving on to a new topic or set of skills before a particular youth has mastered the skills.

Second, the category of skills targeted might rest on insufficient scientific data. For example, the cognitive restructuring aspects of anger programs

often challenge one type of cognitions, attributions for hostile intent or problem-solving deficits. The cognitive constructs targeted might not be the most influential cognition to arouse anger. We have little research comparing the different cognitive models of anger to indicate which cognitive construct accounts for the most variance in anger arousal and thus which one is best to target in treatment. The same applies for the behavioral skills. Of unassertive behavior, poor social skills, or poor relaxation skills, which best predicts anger and aggression, and which would be the best to target in treatment?

Third, manualized approaches fail to individualize treatment based on the cognitions and behavioral skill deficits of the specific youth based on information revealed through an assessment. DiGiuseppe and Tafrate (2011) recommended an assessment-driven, individualized treatment based on the results of the Anger Regulation and Expression Scale. They identified 15 different characteristics of anger that are important for intervention planning. For example, some youth might have impulsive anger, while for others anger might result from rumination. These cognitive styles would require different interventions. In addition, some children experience anger aroused by resentment from perceived maltreatment, while other children might have other characteristics that lead to their anger. They also note that youth might differ in the function of their anger.

Fourth, perhaps we need to identify subgroups of angry/aggressive youth, and each subtype might have a different set of interventions. We would then need to individualize the programs and target the cognitive process or behavioral skills deficits that are displayed by individual youth. Brewer et al. (2015; Brewer & Murphy, in press) followed this strategy and achieved some success with a recalcitrant group of aggressive youth. Other than this research, we have little data on diagnostic subtypes, and we could befit from more such approaches.

Fifth, we need more research on cultural differences. We have little research that addresses whether anger treatments developed in one country are portable to another. We also have little research that addresses the relative efficacy of programs with different cultural groups such as emigrants and Indigenous groups.

Sixth, perhaps we are focusing on the wrong characteristics of anger to target in treatment. Some youth have impulsive anger, while other ruminate more about perceived injustices. Some youth are driven by the desire for revenge, while others use their anger to control others and experience social reinforcement for their anger. Although aggression is thought to result from impulsivity, other characteristics might play a role. DiGiuseppe and Venezia (2015) used data from the ARES to present a different model. They showed that although aggressive acts are most highly correlated with the ARES subscale of impulsivity, the scale itself seems strongly influenced by other characteristics of anger, such as the three Rs—resentment, revenge, and rumination. They found a significant correlation between the rumination and impulsivity scales. They propose that as a person restrains the desires for revenge and continues to ruminate, they will deplete their cognitive resources and lose the ability to control their aggressive desires and eventually act on these desires. The mechanism for this would be Baumeister's (Baumeister, Vohs, & Tice, 2007) ego depletion model, which asserts that self-control works like a muscle and uses mental energy in the form of glucagon, which can be depleted or exhausted. They recommend that for some youth, the three Rs should be the focus of treatment rather than impulsivity.

Anger is clearly an emotion that people do not wish to change. This fact leads to low motivation for change. Understanding the processes behind motivating people to change would do a great deal toward helping us develop better treatments.

Test Yourself Quiz

1. Compared to other emotions anger is often less-studied and as such, we know less about anger. What are some of the variables that have impacted the degree to which anger has been measured and researched in working with youth?

2. Anger presents itself differently as a function of developmental level, context where anger is experienced, and symptom presentation. In consideration of working in the schools, what measures would school psychologists want to consider to understand the multi-dimensional aspect of anger among youth?
3. While interventions for anger among youth typically support programs that have a cognitive-behavioral base, it is still not clear as to what specific components of the intervention lead to changes in anger experience and expression. In consideration of the sections on the effectiveness of anger interventions, what programs would you think would be most effective for youth with an anger and a social-skills deficit? What about for students who experience anger in the form of rumination but do not openly express it to others?
4. What cultural variables in Australia may warrant consideration for work with youth who are angry and their families?

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Evidence-Based Assessment and Intervention for Autism in School Psychology

Tulio M. Otero, Caroline de Fina, Lauren Barker, and Jason Skues

Introduction

Autism spectrum disorder (ASD) is a lifelong neurodevelopmental disorder that has been associated with atypical brain functioning. Despite being a neurodevelopmental disorder, it is only defined by the absence or presence of behaviours in both the Diagnostic and Statistical Manual V (American Psychiatric Association, 2013) and the International Classification of Diseases 10 (World Health Organization, 1992). The experience and needs of individuals diagnosed with an ASD vary greatly on an interindividual basis. For example, an ASD may present with or without intellectual impairment, comorbid mental health conditions (Cuijpers, Smits, Donker, ten Have, & de Graaf, 2009; Gillott & Stranden, 2007; Simonoff et al., 2008) and comorbid health conditions such as seizure disorders, speech and language disorders, learning disabilities and motor difficulties (American Psychiatric Association, 2013; Wray, Knott, & Silove, 2005). School psychologists may be called upon to support individuals with an ASD in both mainstream and special education settings. As the needs of many children and young people with ASD are so broad (Daily, 2016), school psychologists may need to call upon their knowledge and experience from many areas of clinical practice in order to best meet the needs of students.

The number of children and young people diagnosed with autism in Australian schools is increasing (Australian Bureau of Statistics, 2012; MacDermott, Williams, Ridley, Glasson, & Wray, 2006). Therefore, all school psychologists will almost certainly be required to provide services to students, their parents and educators for this issue. It is important that school psychologists develop a good understanding of ASDs and evidence-based approaches for working with individuals with ASD in order to be able to serve the communities in which they practise. This chapter aims to provide a brief overview of the topics and issues a psychologist may come across when working with individuals with ASD within educational settings and offer knowledge as to best practices in assessment, consultation and intervention.

Diagnostic Criteria

Autism spectrum disorder (ASD) is defined by diagnostic criteria that include deficits in social communication and social interaction and

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restricted, repetitive patterns of behaviour, interests or activities. Autism spectrum disorder is now defined by the American Psychiatric Association (APA) (2013) as a single disorder that includes disorders that were previously considered separate—autism, Asperger's syndrome, childhood disintegrative disorder and pervasive developmental disorder not otherwise specified. Initial signs and symptoms are typically apparent in the early developmental period; however, social deficits and behavioural patterns might not be recognised as symptoms of ASD until a child is unable to meet social, educational or other important life stage demands. Functional limitations vary amongst individuals with ASD and might develop over time (Baio, 2014). These may include but are not limited to the capacity to speak and communicate, care for oneself, socialise and learn.

The World Health Organization (2014) views ASDs as comprising a range of developmental disorders characterised by impairment in functions related to central nervous system maturation covering conditions such as autism, childhood disintegrative disorder and Asperger's syndrome. These disorders are characterised by a varied mixture of impaired capacity for reciprocal socio-communicative interaction and a restricted, stereotyped repetitive repertoire of interests and activities. These conditions currently belong to the category in the International Statistical Classification of Diseases and Related Health Problems (Tenth revision: Version 2016 n.d.) of pervasive developmental disorders, within the broader category of mental and behavioural disorders, and under the category of disorders of psychological development.

Prevalence

A report completed by the Australian Bureau of Statistics (ABS) in 2012 estimated that 0.5 % of the Australian population has a diagnosis of ASD. In addition, males were four times more likely than females to have ASD, with prevalence rates of 0.8 % and 0.2 %, respectively (ABS, 2012). Prevalence rates of ASD peak within the 5–9-year-old age range and slowly decline and then plateau in adulthood, starting at age 25 (ABS, 2012). However, it is important to note that the criterion for diagnosing ASD has changed over the years and the current prevalence data does not reflect this change. In the USA, the Centers for Disease Control and Prevention's (CDC) most recent data (CDC Data & Statistics, 2016) suggests the overall prevalence of ASD amongst the Autism and Developmental Disabilities Monitoring (ADDM) Network sites was 14.7 per 1000 (1 in 68) children aged up to 8 years. Of the 11 study sites, 7 sites with sufficient data on intellectual ability revealed that 31 % of children with ASD were classified as having IQ scores in the range of intellectual disability (IQ ≤ 70), 23 % in the borderline range (IQ = 71–85) and 46 % in the average or above average range of intellectual ability (IQ > 85). The median age of earliest known ASD diagnosis was 4 years and 5 months and did not differ significantly by sex or race/ethnicity. Recent reviews undertaken by members of WHO estimate a global median prevalence of 62/10,000, that is, 1 child in 160 has an autism spectrum disorder and subsequent disability (WHO, 2014).

Given the increases in ASD diagnoses which have been attributed to improved awareness and recognition, changes in the diagnosis and the younger age of diagnosis (see Elsabbagh et al., 2012; Fombonne, Quirke, & Hagen, 2009), combined with an inclusive education approach in which students with ASD are enrolled in mainstream classrooms, school psychologists today may encounter more children with ASDs than ever before and are therefore more likely to be asked to participate in the screening, identification, diagnosis and educational planning for students with ASD.

Autism: Evolution of the Term and Current Definition

Modern definitions and criteria used to label a child as autistic and thus having autism have changed throughout the decades. One of the first known cases of what appeared to be autism was

the case of The Wild Boy of Aveyron, an undomesticated child, who was found in the woods near Saint-Sernin-sur-Rance in France in 1798 and showed several signs of autism such as lack of language development, difficulty displaying empathy and inability to appreciate tonality in others speech. A medical student by the name of Jean Itard treated the boy with behavioural methods targeted at improving social attachments and expressive language (Wolff, 2004). In 1910 the word 'autism' (derived from the Latin word *autismus*) was used by Swiss psychiatrist Eugen Bleuler to describe the 'autistic withdrawal of the patient to his fantasies, against which any influence from outside becomes an intolerable disturbance', when describing schizophrenia (Kuhn & Cahn, 2004, p. 365). The word 'autism' as we understand it more recently came about in 1938 when Hans Asperger used the term in a lecture (Asperger, 1938) in which he described behaviours that came to be known as Asperger's syndrome. Leo Kanner first used *autism* in its modern sense in English when he introduced the label *early infantile autism* in a 1943 report of 11 children with striking behavioural similarities (Kanner, 1968). Many of the characteristics described in Kanner's first paper on the subject, notably 'autistic aloneness' and 'insistence on sameness', are still regarded as typical of the autistic spectrum of disorders (Lyons & Fitzgerald, 2007).

The criteria used to diagnose autism have been subject to some variation over time. One of the key tools used as the basis for diagnosing autism is the Diagnostics and Statistics Manual of Mental Disorders (DSM) (APA, 2013). The DSM provides diagnostic criteria clinicians can use to determine different types of mental and behavioural disorders (APA, 2013). The first two versions of the DSM (DSM-I, published in 1952 [APA, 1952] and DSM-II, published in 1968 [APA, 1968]) indicate children with autism should be classified as having 'childhood schizophrenia'. In 1980 the DSM-III distinguished autism from childhood schizophrenia (APA, 1980). The DSM-III-R laid out a checklist of criteria for diagnosing autism in 1987 (APA, 1987). The DSM-IV (APA, 1994) and DSM-IV-TR (APA, 2000) expanded the definition of autism and included Asperger's syndrome. The DSM-V (APA, 2013) combined all subcategories into one umbrella diagnosis of autism spectrum disorder. The DSM-V will be discussed in more details later in the chapter.

The Neurological Underpinnings of Autism Spectrum Disorder

Over the past five decades, the understanding of the neurobiological and neuropsychological landscape of ASD has been based on observations of similarities with those of persons with frontal lobe damage and the dentato-thalamocortical pathway (Damasio & Maurer, 1978). This pathway plays a critical role in language and higher cognitive functions, which are domains in which people with autism show varying degrees of impairment. Using positron emission tomography (PET), Horwitz, Rumsey, Grady and Rapoport (1988) found a global increase in resting glucose metabolism in adults with autism, which provided indirect support to autism being linked to abnormal brain activity. With the advent of modern neuroimaging techniques, the last two decades have witnessed an exponential rise in the number of studies that examine the brain in autism using a wide variety of techniques, such as PET, functional magnetic resonance imaging (fMRI), electroencephalography (EEG), magnetoencephalography (MEG), diffusion tensor imaging (DTI) and proton magnetic resonance spectroscopy (1H-MRS). Although such technologies have illuminated our understanding of regional brain function and dysfunction in autism, there have been many inconsistent findings and, therefore, currently limited potential to explain the heterogeneous nature of a disorder like autism. Attempts to explain autism as a focal brain region abnormality have repeatedly fallen short, and there are several recent efforts to understand the disorder from the examination of large and small brain networks (Keown et al., 2013; Maximo, Cadena, & Kana, 2014). Whilst advancements in the methods of neuroscience may assist in accurate identification of the brain-based substrates of

the disorder, psychologists will continue to a play a critical role in the assessment, identification and treatment of children on the spectrum.

Early Signs and Symptoms

Research into the early indicators of autism in infancy and early childhood continues to make great gains (Pierce et al., 2011). The younger sibling of a child diagnosed with autism is seven times more likely than peers to be diagnosed with the disorder, and studies of 'at risk' siblings have provided new knowledge on the subtle early signs of autism that may begin to emerge in infancy and very early childhood for some individuals (Ozonoff et al., 2011). Some children have been identified as symptomatic, with concerns held by both their parents and experienced clinicians, from 6 months of age (Rogers et al., 2014). Given the importance of appropriate intervention being provided during key periods of neuroplasticity and language and social development, an understanding of the very early-in-life symptoms and trajectory of some autism spectrum disorders will assist in early identification and early help (Dawson & Burmer, 2011). These early signs in infants and toddlers include language delay, early social skill deficits and restricted interests and repetitive behaviours or movements (Barbaro & Dissanayake, 2013). Another red flag for ASD is any regression in language and social skills (Barger, Campbell, & McDonough, 2013). Some children with autism spectrum disorder start to develop communication and then regress, typically between 12 and 24 months (Martínez-Pedraza & Carter, 2009). For example, a child who began saying 'mama' or 'dada' may stop using language entirely. A child who enjoyed playing peek-a-boo may stop playing social games. Detailed examples of these signs are presented in Table 1.

Although there is no universal screening programme for detecting ASD in infancy and early childhood, some recent work in Australia has examined whether maternal and child health nurses, who currently provide a free consultation service for parents of children less than 6 years of age that involves tracking their child's health, learning and development from birth until they start school (Department of Education & Training Victoria, 2016a), can be trained to identify and monitor the early signs of ASD in children under two years of age (Barbaro, Ridgway, & Dissanayake, 2011). A study of maternal and child health nurses in Melbourne who participated in 2½ h of training, which focused on the typical and atypical social and communicative development, the signs of ASDs and the specific items within the MCH record at each age that were relevant to the detection of ASDs, found that upon completion, nurses were able to correctly identify and refer infants and toddlers with ASD based on a pattern of delayed, absent or abnormal development in social attention and communication behaviours. The findings led the authors to conclude that routine monitoring for ASDs during infancy and early childhood should become standard practice amongst primary health care professionals (Barbaro et al., 2011). This type of developmental surveillance would enable such professionals to prompt further assessment for children identified as at risk, which in turn provides the best opportunity for providing early intervention.

Table 1 Early signs of autism spectrum disorder in infants and toddlers

• Lack of eye contact (e.g. doesn't look at the parent whilst being fed)
• Does not respond to his/her name or to the sound of a familiar voice
• Absent expression of emotions (e.g. smiling when engaging in play or when smiled at)
• Does not visually follow objects or gestures (e.g. when someone points something out)
• Does not reach out to be picked up
• Does not initiate or respond to cuddling
• Limited use of gestures to communicate (e.g. wave goodbye or point to objects)
• Does not imitate movements and/or facial expressions
• Lack of shared interest or desire to play with others
• Does not babble or use 'baby-talk' (at 6 months) or doesn't ask for help or speak in two- to three-word sentences (e.g. 'want milk') (at 24 months)
• Overfocused visually on parts of toys without necessarily playing functionally with the object
• Poor pretend play

Screening and Identification

When a child exhibits signs as listed above, psychologists and other professionals may use screening tools as a useful way to identify whether or not undertaking the rigours of a comprehensive ASD assessment is warranted. Screeners are short tests or questionnaires to determine if children are acquiring the basic skills expected at their developmental level (CDC, 2015). It is noteworthy to mention, however, that screening instruments have shown a moderate degree of accuracy overall. In a recent study by Charman et al. (2015), the accuracy of two screening instruments used in UK Community Health Services, the Modified Checklist for Autism in Toddlers (M-CHAT) and Social Communication Questionnaire (SCQ), for autism spectrum disorder (ASD) was tested. A two-stage screening and in-depth assessment procedure, combined with sampling stratification and statistical weighting, allowed the accuracy of the screens to be estimated in a sample of 543 referred children. Both the SCQ and the M-CHAT performed only moderately well at identifying cases who went on to meet the diagnostic criteria for ASD. The authors further indicate that whilst screeners may provide useful information to aid the decision to refer on for a specialised ASD assessment, their accuracy is moderate and does not meet the criterion set of 80% sensitivity and specificity used in the recently published UK National Institute for Health and Care Excellence guidelines (NICE, 2011).

Screeners may evaluate children's functioning in the areas of social skills, fine and gross motor skills, language and communication and adaptive skills/independence. Common ASD screening tools that rely on parent reporting are presented in Table 2.

Table 2 ASD screening tools

Tool name	Informant	Author
Autism Behaviour Checklist	Parent-completed questionnaire	Krug, Arick, and Almond (2008)
Autism Spectrum Screening Questionnaire (ASSQ)	Parent-completed rating scale	Ehlers, Gillberg, and Wing (1999).
Developmental Checklist-Early Screen (DBD-ES)	Parent-completed rating scale	Gray and Tonge (2005)
Modified Checklist for Autism in Toddlers (M-CHAT)	Parent-completed checklist and interview	Robins, Fein, and Barton (2013)
Pervasive Developmental Disorders Screening Test-II (PDDST-II)	Parent-completed rating scale	Siegal (2004)
Social Communication Questionnaire (SCQ)	Parent-completed rating scale	Rutter and Balley (2003)

Identification During School Years

In our experience, when children with signs of ASD have not been identified in the preschool years, it is often the child's early school years teachers who develop concerns for the child and suggest the need for a diagnostic assessment. For many children with age-appropriate language and cognitive skills, it is often not until they are exposed to the greater social and behavioural demands of school that the symptoms of ASD become more apparent (Davidovitch, Levit-Binnun, Golan, & Manning-Courtney, 2015). Table 3 presents some of the possible ASD features that may present in primary-school-aged children.

Diagnosing ASD

There are a number of pathways that lead towards a diagnosis of an ASD in Australia. Autism assessments are conducted by a range of professionals, including paediatricians, psychiatrists, psychologists and speech pathologists within both publically and privately funded systems, and, as found by the Australian Autism Cooperative Research Council (AACRC), there is significant variability in assessment process between clinicians and between the states (Taylor et al., 2016). Some state-level guidelines recommend that a comprehensive assessment be conducted by at least three of the following pro-

Table 3 Examples of possible ASD features presenting in primary-school-aged children (Signs & System, CDC (2015))

Developmental areas	Examples of possible ASD features
Communication and language	Abnormalities in language development Odd intonation and vocabulary for child's age Limited use of language for communication Impaired reciprocity in communication, such as one-sided conversation Difficulty with phonemic awareness or literacy skills
Social skills	Social impairments, such as inability or disinterest in joining play with others Inappropriate ways of initiating social interaction, such as aggressive or disruptive behaviour Seeming unawareness of social norms or appropriateness Failure to form close friendships or to become part of a clear peer group
Behaviour	Disruptive behaviour or aggression with peers Difficulty following classroom routines or instructions or rigid policing of classroom rules Sensory seeking or aversive behaviour Difficulty adjusting to change, with a strong preference for sameness and routine Rigid or inflexible behaviours Difficulties with organisation, attention and focus
Emotions	Extreme emotions Emotional meltdowns Easily overwhelmed by socially or environmentally stimulating situations including loud classrooms, noisy playgrounds and sport courts
Motor skills	Poorly developed coordination and gross motor skills Odd gait Poorly developed fine motor skills

fessionals in order to confirm a diagnosis according to DSM criteria: a psychologist, speech pathologist, paediatrician and/or child psychiatrist (Glasson et al., 2008); however, this is not always followed. The report on the current state of diagnostic practices in Australia found that there are some professionals not practising in a way that is consistent with international best-practice guidelines for ASD diagnosis and they suggest a minimal national standard in ASD diagnosis across Australia (Taylor et al., 2016). In the current absence of biomarkers for the identification of autism, assessment involves the investigation of a number of different areas and a differential diagnosis. There is general consensus that a rigorous process involving a physical examination, hearing test, child observation and parent interview, including developmental case history, is necessary (NICE, 2011). A 'best-practice' ASD assessment is more comprehensive and will include more detailed genetic, blood and physical testing, a standardised developmental or cognitive test, language assessment, information from multiple informants and across multiple settings, and the use of high-quality ASD behaviour profiling measures, such as the ADOS and ADI-R, administered by clinicians trained and specialised in the identification of ASDs (Anagnostou et al., 2014; Taylor et al., 2016).

Consistent with best practice, the Helping Children with Autism Guide for Evidence-based Assessment and Treatment developed by the Australian Psychological Society (APS, 2016a) states that a psychologist's assessment of ASD will typically involve conducting interviews with parents, other carers and teachers, as well as observations of the child in different settings including home, school and other social settings. Psychologists may administer formal assessments such as the CARS, ADEQ, SCQ, ADOS and/or ADI-R. They may also administer more general assessments such as intelligence tests (e.g. WPPSI, WISC) and assessments of adaptive behaviour (e.g. Vineland Adaptive Behaviour Scales). Overall, when considering the best-practice standards for ASD assessments, as outlined above, it is clear to see that school psychologists have a unique and important

contribution to the diagnostic process and within the assessing team.

The funding landscape across Australia is also often taken into consideration when ASD assessments are conducted. For example, to access federally funded early intervention funding under the Helping Children with Autism Package (Department of Social Services, 2016), a paediatrician acts as the 'gatekeeper', and funding may only be activated when a letter from a paediatrician confirms the diagnosis. This may occur with or without the multidisciplinary and breadth of assessment, as outlined above. Furthermore, different educational states and systems have different requirements on the type of assessments used and the required scores needed for a child to be eligible for additional education support funding.

School Years Assessment

Despite the range of public and private assessment options available in Australia, in our experience, many children with signs of ASD are not identified until the early years of primary school or later, when the social and environmental demands have increased. This is an interesting fact in light of some researchers' indication that children diagnosed before age of three remain diagnosed on the spectrum after a follow-up interval of 2–3 years (Towle, Vacanti-Shova, Shah, & Higgins-D'alessandro, 2014; Woolfenden, Sarkozy, Ridley, & Williams, 2012). The ASD assessment approach during the school years varies depending on the state as well as whether the child is enrolled in a government school or a non-government catholic or independent school. For example, in Victoria, ASD assessments are typically conducted within a multidisciplinary team setting (e.g. Child and Adolescent Mental Health Service, CAMHS, Developmental Disabilities team, Hospital Assessment Team, etc.) or by individual professionals who work privately but collaborate with other professionals (AMAZE, 2016). School psychologists are increasingly called upon to identify and assess children with ASD, regarding both diagnosis and assessment to report results for submissions assessing funding eligibility. Therefore, school psychologists should consider the best-practice guidelines in ASD assessment, as outlined above.

When presented with the identification of a possible ASD, the school psychologist should consider a multi-faceted assessment including an investigation of the child or young person's family and developmental history, behaviour, cognition and communication (Taylor et al., 2016). Information should be gathered from multiple sources and tools, with direct assessment of the child by the clinician always being included. The presence or absence of comorbid conditions, such as anxiety, depression, ADHD and learning difficulties, should also be carefully considered during the assessment process. The student should also undertake a language and pragmatic communication assessment with a certified practising speech pathologist and should also be referred for audiology assessment, a hearing test, physical examination and comprehensive health check.

Below is a list of commonly used and author-suggested assessment tools and methods used in assessing ASD in Australia (Table 4):

Ethical and Professional Considerations

Given the complexity of diagnosing an ASD according to the Australian Autism Cooperative Research Council best-practice standards, school psychologists should consider their ethical position and professional limitations when presented with the need for a within school autism assessment. Whilst some school system funding categories only require a diagnostic rating system, such as the CARS, psychologists should consider the recommended high-standard ASD assessment tools, such as the ADOS-II and ADI-R. Comprehensive ASD assessment tools are not generally taught within psychology degrees and require specialist post-registration training. The Australian Psychological Society (APS) recommends that psychologists conducting assessments have extensive experience in working with children and young people with ASDs and specific

Table 4 ASD assessment tools in Australia

Category	Test name	Description	Authors
Developmental history	Autism Diagnostic Interview—Revised (ADI-R)	Standardised diagnostic interview protocol	Le Couteur Lord, and Rutter (2003)
Symptoms and behaviour			
Direct observation	Autism Diagnostic Observation Schedule-2 (ADOS-2)	Standardised observation tool	Lord, Rutter, DiLavore, Risi, Gotham, and Bishop (2012)
	Direct observation of the child—does this have a test associated? Perhaps if not it does not go into this table as a published assessment tool	To be conducted across multiple settings, such as the child's classroom, playground and home	
	Functional Behaviour Assessment (FBA)	Usually conducted by a clinician experienced in Applied Behaviour Analysis (ABA) or Board Certified Behavior Analyst (BCBA)	
Rating scales	Autism Spectrum Rating Scales (ASRS)	Norm-referenced Clinician Rating Scale	Goldstein and Naglieri (2010)
	Childhood Autism Rating Scale (CARS)	Parent- and clinician-completed rating scale	Schopler, Van Bourgondien, Wellman, and Love (2010)
	Child Behaviour Checklist (CBCL)[a]	Standardised parent-, teacher- and child-completed survey form	Achenbach and Rescorla (2000, 2001)
	Gilliam Autism Rating Scale (GARS)	Teacher- and parent-completed rating scale	Gilliam (2014)
	Social Responsiveness Scale (SRS)	Norm-referenced parent and teacher rating scale	Constantino (2005)
	Social Communication Questionnaire (SCQ)	Parent questionnaire	Rutter et al. (2003)
Adaptive behaviour	Adaptive Behaviour Assessment System-3 (ABAS-3)	Norm-referenced parent/teacher survey	Harrison and Oakland (2015)
	Vineland Adaptive Behaviour Scale (VABC)	Standardised survey completed by parent	Sparrow, Cicchetti, and Saulnier (2016)
Cognition	Cognitive Assessment System-2 (CAS-2)	Norm-referenced, standardised administration	Naglieri, Goldstien, and Das (2014)
	Differential Ability Scales, Second Edition (DAS-II)	Norm-referenced, standardised administration	Elliott (2007)
	Stanford-Binet Intelligence Scales, Fifth Edition (SB5)	Norm-referenced, standardised administration	Roid (2003)
	Wechsler Preschool and Primary Scale of Intelligence-IV A&NZ[a]	Norm-referenced, standardised administration	Wechsler (2012)
	Wechsler Intelligence Scale for Children-V A&NZ[a]	Norm-referenced, standardised administration	Wechsler (2014)
	Woodcock-Johnson Tests of Cognitive Abilities—Third Edition[a]	Norm-referenced, standardised administration	Schrank, McGrew, and Mather (2014)

[a]Those marked have Australian normative data

training in ASD assessment tools. The APS keeps a register of psychologists identified as having experience and training in assessing and supporting ASD. Clinicians included on the APS Autism Spectrum Disorder Practitioner List (see APS, 2016b) have provided the APS with specific details relating to their experience in assessing and treating ASD. Such details pertain to clini-

cians having completed APS-recognised education and training as well as their experience, knowledge, skills and practice in the area of ASD. The list is open to all APS members as a member service, and any non-APS members meeting the criteria detailed above can be registered on the list by paying a fee. In order to meet the need for improved ASD diagnostic knowledge amongst Australian clinicians, the AACRC has developed a nation-first graduate certificate in autism diagnosis, through The University of Western Australia.

Early Intervention for ASD in Australia

Recent research indicates that children who participate in early intervention programmes result in higher cognitive functioning, adaptive behaviour and receptive and expressive communication skills (Peters-Scheffer, Didden, Korzilius, & Sturmey, 2011). Koegel, Bruinsma and Koegel (2006) reported that children diagnosed with ASD who received early intervention services showed stronger communication skills than children who received intervention beginning after the age of 3. Early intervention is available to children prior to school, typically up to around 5 years of age, and psychologists are heavily involved in these services. Families may access federally funded, state-funded or private early intervention services, such as speech therapy, occupational therapy, special education support, play groups, psychological services and behaviour analysis. Early intervention is generally considered to be before the age of 5; however, current federal government funding is available to children up until their seventh birthday. There is a large body of research supporting early intensive, behavioural interventions (EIBI) in improving the long-term outcome for children with ASD, and government-sponsored guidelines recommend that 'a minimum of 20 h or more a week over 2 or more years is essential for young children to make major gains' (Roberts & Prior, 2006, p. 3). However, most preschoolers with ASD in Australia do not undertake EIBI as it is only partially government funded and beyond the financial means of most Australians. Currently, children receive up to $12,000 AUD of federal funding to spend with an approved service provider such as psychologists, speech pathologists, occupational therapists, behaviour analysts and special education teachers. In addition, children may receive state-funded Early Childhood Intervention Services (ECIS). ECIS services vary from state to state within Australia, with some states providing autism-specific ECIS services. These are often in the form of a weekly service-devised group programme or a caseworker model, with an hour of support provided per week by an allied health clinician allocated to the family. The group sessions may involve social, communication and motor activities in a group of ten or more children, run by allied health clinicians. At the time of press, the National Disability Insurance Scheme (NDIS) was being trailed in Australia (NDIS, 2016). Once in and rolled out nationally, the NDIS will change funding options for individuals with ASD.

Internationally, the focus on and extent of early intervention services varies. In the USA, children 'at risk' of or diagnosed with various disabilities, including ASD, receive grants for federally funded services (IDEA, Sec. 303 Early Intervention Program for Infants and Toddlers with Disabilities). These programmes are designed to teach children appropriate behaviours and social communication skills, as well as provide them repeated practice to strengthen their skills. Several EI programmes common throughout the USA include the Early Head Start, the Treatment and Education of Autistic and related Communication Handicapped Children (TEACCH), the Early Start Denver Model and the Learning Experience: An Alternative Program for Preschoolers and Parents (LEAP). In Australia, both evidence-based and nonevidence-based early intervention programmes are employed across the public and private sector, including programmes such as the Early Start Denver Model and programmes based on Applied Behaviour Analysis, TEACH and Autism Specific Early Learning and Care Centres to name but a few (O'Reilly & Wicks, 2013).

Educational Eligibility

Following an assessment, the type of support a child with ASD may receive within educational settings varies from state to state and across the public and private education sectors. The allocation of funding or additional support may or may not be diagnosis specific depending on the education system. For example, the Program for Students with Disabilities (PSD) in Victoria is a targeted supplementary programme that provides resources for government schools to support the education of students with disabilities and with moderate to severe needs. The PSD has seven categories including one for ASD. In order to meet the eligibility criteria for funding under the ASD category, a student must have a formal diagnosis by a multidisciplinary team, significant deficits in adaptive behaviour established by a composite score of two standard deviations or more below the mean on an approved standardised test of adaptive behaviours and significant deficits in language skills established by a comprehensive speech pathology assessment demonstrating language skills equivalent to a composite score of two standard deviations or more below the mean (Department of Education & Training Victoria, 2016a). Victorian government schools are funded for each eligible student at one of six levels depending on a student's educational needs. Funding may be used to provide resources such as teaching staff; specialist staff including psychologists, social workers and speech pathologists; specialist equipment or materials; and education support staff. Typically funding is used to provide educational support staff for students eligible under the ASD category. Whilst the example of Victorian government schools is presented here, school psychologists need to be aware of the relevant assessment and eligibility criteria for the jurisdiction in which they work in as well as the type of school.

In addition, it is common that once a child is identified within a school's funding category as requiring additional support, an Individual Education Plan (IEP) is prepared and monitored. There are a number of state and federal laws and education measures that impact on the obligations that schools have to support the inclusion and learning of children with autism and disabilities, such as the Australian Disability Standards in Education (2005) and the Australian Disability Discrimination Act (1992). As school psychologists are often in a position to advocate for the individualised needs of students with ASDs to be addressed, it is important that school psychologists familiarise themselves with the framework of legislation.

The input of school psychologists is also often sought in the identification and monitoring of IEP goals. IEP goals may encompass a variety of areas, and psychologists often have a role to break down the ways in which the IEPs can be achieved and supported in a targeted and measurable way. In this regard, psychologists are sometimes requested to attend meetings with the parent support group (PSG). Psychologists are also regularly called upon to train teaching staff in the needs of children with ASDs and provide individual adaptations for the classroom. This may involve modifying the curriculum or using autism-specific teaching approaches, developing interventions for improving social and communication skills, supporting school transitions and designing accommodations for sensory processing difficulties.

Educational Interventions for ASD

Given the emphasis on inclusive education in Australia where students with ASDs are educated in mainstream schools, school psychologists need to be aware of the educational interventions that have been shown to be effective for students with ASD. Dawson and Osterling (1997) identified six common elements based on a review of early interventions programmes that have been used internationally as best practice for educational programmes, including for children in mainstream schools. These include specialised curriculum content, highly supportive teaching environments and detailed generalisation strategies, predictability and routine, functional approach to challenging behaviours, transition

support from previous school environments and family involvement. Indeed these elements have been suggested as the minimum point for intervention and education for children with ASD (Lynch & Irvine, 2009).

More recently, Bond et al. (2016) conducted a systematic review on published studies between 2008 and 2013 that investigated educational interventions for children with ASD. Of the 6232 articles published during this period, 85 were included in the review based on a coding framework and subsequently categorised into studies with the most evidence, moderate evidence, some evidence and a small amount of evidence to support the intervention. This ranking was based on the number of studies as well as the use of a randomised controlled trial (RCT), quasi-experimental study or single-case experiment design. Interventions with the most evidence included joint attention interventions and comprehensive intervention programmes during the preschool years and peer-mediated interventions, multicomponent social skill interventions and behaviour interventions to decrease challenging/interfering behaviours during the early school years. These findings can be used by school psychologists to help select and develop the most appropriate intervention for meeting the needs of children with ASD within a school environment.

Evidence-Based Interventions

Whilst there are a myriad of interventions for ASD, it is important for school psychologists to be aware of interventions that researchers have revealed as being effective, otherwise known as evidence-based practices (EBPs). Not only will this help ensure that, as psychologists, they select and use interventions that meet the ethical standards of competence and professional responsibility which are specified in the APS Code of Ethics (APS, 2007), it will also ensure that evidence-based practices are employed which meets the expectations of the delivery of healthcare in Australia (APS, 2010). For practitioners in this area, an important study to be aware of is the one conducted by Wong et al. (2015). Similar to Bond et al. (2016) with their focus on ASD interventions, their recent much larger review of 456 education intervention studies for ASD found 27 focused intervention practices that met the criteria for evidence-based practice (EBP) for ASD.

Evidence-Based Group Interventions

In our experience, school psychologists often provide the important job of running group programmes within a school. These groups may comprise of participants all with an ASD or may include some students with ASD amongst others with similar emotional, social or behavioural needs. There are now a number of evidence-based group intervention programmes for children and young people with ASD addressing specific areas of need such as emotional regulation, anxiety management and social skill development. Most evidence-based group interventions for children and young people with ASD require participants to have cognitive and verbal abilities in the average range (Lickel, MacLean, Blakeley-Smith, & Hepburn, 2012). It is also important to consider the match of group participants in terms of need and the likelihood of disruptive behaviour (Table 5).

In addition to the specific programmes listed above, there are additional ASD specific interventions that have research support that can be applied within the school setting. Social stories have long been used as a therapeutic technique to teach children with ASD the cues and behaviours they need to know to interact with others in socially appropriate manners (Del Valle, McEachern, & Chambers, 2001) and to relate to the emotional needs of others. For example, social stories may be used to explain how to play with others or what to do when you are feeling hurt by others. These stories can be delivered by text or video. Indeed a recent therapeutic technique involves the use of social stories as songs. Various research studies have shown that continuous exposure to music leads to cognitive development (Rauscher, 2003). This combination of

Table 5 ASD group interventions

Focus	Programme	Author	Description	Evidence
Emotional management	Exploring Feelings: Cognitive Behaviour Therapy to Manage Anger	Attwood (2004)	Six sessions for 2 h of cognitive behaviour therapy for children aged 9–12 years, in groups of 2–5 children	Randomised controlled trial of 45 children. Parent report indicated significantly decreased episodes of anger. Standardised measures of anger also showed significant decrease for intervention group
Anxiety reduction	Exploring Feelings: Cognitive Behaviour Therapy to Manage Anxiety	Attwood (2004).	Six sessions for 2 h of cognitive behaviour therapy sessions for children aged 9–12 years, in groups of 2–5 children	Randomised controlled trial of 71 children resulted in decrease in parent-reported anxiety symptoms for the intervention group and increase in child's ability to generate positive coping strategies
Social skill development	Secret Agent Society (SAS) (to address social skills)	Beaumont	For children aged 8–12 years with 'high functioning' ASD. Nine sessions of 2-h group sessions	Randomised controlled trial showed participants in the SAS programme had greater improvements in social emotional management skills, with 76% improving to within the range of typically developing children
Social communication and cognition	Social Thinking programme	Winner (2007)	Curriculum for preschool children to adults. Adaptable sessions; however study involved 8 h of 1-h group sessions	Multiple-baseline design with six children aged 6–11 years and verbal IQ in average range. Significant changes found pre- and posttreatment in 'expected' and 'unexpected' behaviours

music therapy and social stories as a treatment intervention intends to assist children with ASD with transitional periods and other challenging situations (Partington, 2009). The social stories are set to popular musical melodies and are instructional in nature. Partington (2009) reports that this technique teaches children to sing when faced with challenging situations to provide a sense of comfort and assist them in responding in socially appropriate manners.

Mindfulness-based therapy (MBT) is a relatively new form of treatment for autism that has been previously found particularly effective in treating mood disorders (Hofmann, Sawyer, Witt, & Oh, 2010) and is now being extended to determine its effectiveness in treating people with autism (Spek, van Ham, & Nyklicek, 2013). Mindfulness involves a person focusing one's awareness at the present moment, whilst acknowledging and accepting one's sensations, thoughts and feelings (Van Gordon, Shonin, & Griffiths, 2015). In light of the deficits in theory of mind and communication of many patients with ASD, researchers hypothesise that exercises without the need to analyse and discuss thoughts are highly suitable for these individuals. Past research results showed a significant reduction in depression, anxiety and rumination of thoughts, as well as aggressive behaviours for those with ASD (Singh et al., 2011; Spek et al., 2013).

Interventions to Support Behaviour

Challenging behaviour is a top concern for the parents and educators of children with autism, and improving behaviour is an important task of psychologists working with children with ASD in schools. There are a number of contributing factors to the often challenging behaviour of children and young people with autism; however, the most effective approach in improving behaviour requires analysis of the immediate causes and consequences of the behaviour in question.

Positive Behaviour Support (PBS) plans, promoted by the Australian National Safe Schools Framework, involve conducting a Functional

Behaviour Assessment (FBA), and, based on the assessment findings, developing a plan that will reduce triggers to the behaviour encourages more desirable replacement behaviours and reduces accidentally reinforcing the unwanted behaviour. FBA involves clinicians, including psychologists who have received relevant training in FBA methodologies, conducting observations of the child, data collection, interviews with parents and teachers and careful data analysis to hypothesise the functions and maintain factors of the undesired behaviour/s. It is only after this careful functional assessment that the PBS can be developed based on the findings of the assessment. The PBS plan should include a clear description of the behaviour in question, including non-examples of the behaviour or behaviours beyond the scope of the current plan hypothesised function of the behaviour; prevention strategies, the direct teaching, support and reinforcement of replacement skills; and new ways to respond when the problem behaviour does occur. Teachers, teaching assistants and parents will implement the PBS plan; therefore, it is critical that all parties are fully trained and supported in implementing the plan. School psychologists may also play an important role in teaching the replacement skills to the child. For instance, in a large study examining the effects of a whole school PBS approach on discipline problems and academic outcomes within a sample of more than 500 UK elementary school students, a PBS approach that emphasised improving instructional methods, formulating behavioural expectations, increasing student engagement, positive reinforcement of performance and monitoring student efficacy was found to decrease student discipline problems as well as increase academic performance (Luiselli, Putnam, Handler, & Feinberg, 2005). Due to the importance of consistency in effecting change through a PBS plan, it is important that there is strong collaboration between the home and school regarding the behaviour. The plan will require careful monitoring of the decrease in the target behaviour and an increase in the replacement skills, and if change is not observed within a specified time period, the plan will need to be reviewed.

Prior, Roberts, Rodger, Williams and Sutherland (2011) compared two early intervention approaches in a sample of 28 young children with autism using a RCT. Participants were allocated to one of three groups: an individualised home-based programme (HB), a small group centre-based programme for children combined with a parent training and support group (CB), and a wait-list nontreatment comparison group (WL). The results showed that children in the CB group demonstrated significantly more improvement on some measures of social and communication skills compared with the HB and WL groups. Moreover parents of children in the CB group also reported significantly more improvement in perception of competence and quality of life. However, the different interventions were not necessarily suitable for all children due to the severity of their autism. The authors concluded that a range of intervention options is necessary to meet the diverse needs of children with autism and their families.

Cultural Issues

As a multicultural country, many cultural issues arise for school psychologists working with children and young people with ASD. Very little is known about ASD and indigenous Australians (Williams, MacDermott, Ridley, Glasson, & Wray, 2008). Specific prevalence rates are unknown, and research including populations of indigenous Australians with ASD has not been conducted. It is noted, however, that indigenous Australians are not proportionately accessing the government-funded Helping Children with Autism Package and that accessing diagnosis, health services and support is considerably more difficult due to not only geographical but also cultural considerations (Wilson & Watson, 2011). School psychologists working with children with autism from culturally and linguistically diverse (CALD) backgrounds will need to be aware of general cultural relevance and competencies in the field of mental health particularly when dealing with the child's family. A family's culture will affect diagnosis, acceptance, intervention choices

and interaction with educational and health services. School psychologists may be required to provide direction in cultural considerations when supporting a child with ASD from a CALD background.

Geography

Oftentimes, distance from a major city provides a geographical barrier in accessing autism-specific services (Services of Australian Rural and Remote Allied Health (SARRAH), 2014). As approximately a third of Australians do not live in a major city, there are a large number of children and young people with autism facing geographical barriers. Whilst funding to remote areas should increase, many health posts in remote areas remain unfilled (National Rural Health Alliance, 2012), and other ways in which to support children and young people with autism should be considered. Telehealth is a growing area and one that is well suited to the geographical needs of Australia (Garrat, 2011). Telehealth can involve the psychologist providing Skype sessions to parents and children as well as providing input and strategies after watching videos of the child. Although to date there are few studies focusing on using telehealth directly with children with autism, some research has been done with parents of children with ASD. In one study, a 12 one-hour per week parent intervention programme was tested using telehealth delivery with nine families with ASD. The goal was to examine its feasibility and acceptance for promoting child learning throughout families' daily play and caretaking interactions at home. Parents became skilled at using teachable moments to promote children's spontaneous language and imitation skills and were pleased with the support and ease of telehealth learning (Vismara, McCormick, Young, et al., 2013).

Hepburn, Blakeley-Smith, Wolff and Reaven (2016) reported on pilot testing of a telehealth version of an empirically supported intervention targeting anxiety in youth with autism spectrum disorders. Preliminary efficacy analyses are promising, with improvements observed in youth anxiety over time (relative to a comparison group waiting for live intervention) and an increase in parent sense of competence. In the USA, telehealth is growing in popularity, and although the National Association of School Psychologists has not yet officially weighed in support of telehealth for providing services, the American Psychological Association sees the need for expansion of therapeutic services via telehealth (Rabasca, 2000). Research on the utilisation of or outcomes from telehealth programmes in Australia is limited; however, it will be an important area for future research and monitoring due to the recognised growing need for alternative support services for the third of Australians living in geographically remote areas

Systemic Issues

The largest issue facing the successful support of children and young people with autism in Australian schools is resourcing. Funded support for schools, teachers and children varies from state to state and across the different education systems. When a child is approved for funding under an educational system, how that funding is used is often dependent upon the individual school, which can be problematic. The recommended educational funding reforms recommended by the Gonski report, which NSW has agreed to implement, and the roll out of the National Disability Insurance Scheme (NDIS) in 2018 will bring changes to the current school funding model system and support. An ABS report found that 88 % of children with autism attended school but with restrictions. It also found that people with autism do not finish school well above the rate of individuals without disability and of those with other disabilities (ABS, 2012).

Conclusion

Autism is a neurodevelopmental disorder that affects an increasing number of Australian children and their families. Although there is a strong

evidence base that suggests children can be screened and identified with ASD during infancy and early childhood, it is sometimes the case that deficits or delays in social behaviour are not obvious until children cannot meet the social, educational or life stage demands during the school years. This has implications for the funding and provision of early intervention services in Australia. Yet it is important to note that early ASD diagnoses are reliable and stable over time and that many of the screening and assessment instruments used in Australia for determining ASD and for planning interventions are similar to those used in the USA, so transnational collaborations and research in this area are possible and beneficial.

Since Australian children with ASD may be unidentified and unsupported when they enter school, school psychologists have an important contribution to make to the assessment, diagnosis and intervention of ASD. Not only do school psychologists contribute to the multidisciplinary team responsible for the diagnosis of ASD as well as the funding eligibility process, they are critical in the development, implementation and evaluation of evidence-based educational, social and behavioural interventions. Psychologists are also required to work with teachers and parents to provide them with necessary strategies to help children function better at school, home and other environments. In this regard, it is incumbent upon psychologists working in schools to extend their professional development and training beyond the requirements of general registration in order to adequately support the needs of the ASD students as well as provide assistance to educators and parents.

The following case studies are applications of the content in this chapter:

Case 1: Presenting Concern

A child diagnosed with ASD has transitioned from kindergarten to primary school. The parents have disclosed that their daughter has received additional support at kindergarten and that she is delayed in her social and language skills. She also has a mild intellectual disability.

The role of the psychologist:

Conduct an interview with the parent(s) to collect relevant background information and developmental history.

Consult with the teacher to share information and design an IEP. This should involve providing individualised adaptations to the curriculum- and evidence-based teaching strategies for students with ASDs.

Organise a parent/teacher group meeting to discuss intervention plan and evaluation processes.

Develop a professional development/training programme for teaching and support staff.

If necessary, provide input/prepare educational eligibility application for the student.

Case 2: Presenting Concern

A mainstream classroom teacher has referred a Grade 5 boy in her class to the school psychologist. She has concerns about his social and emotional wellbeing. Whilst he is at an acceptable academic standard, he experiences difficulties interacting with others. He rarely initiates conversation with others and does not contribute to group discussions. During social interactions, she has noticed that he does not make eye contact and directs his body language away from others. He also becomes quite distressed in loud group settings. However, he will talk in depth about a restricted range of areas that he is interested in.

The role of the psychologist:

Select the most appropriate assessment methods.

Conduct an interview with the teacher to discuss the child's social development in terms of his social communication deficits, strategies for initiating a social interaction, unawareness of social norms and failure to establish relationships with others or join a peer group.

Conduct an interview with the parent(s) to collect relevant background information and developmental history.

Organise rating scales to be completed by the teacher and parent(s).

Conduct direct behavioural observations of the child in the classroom and playground. Document the presence/absence of a target behaviour, behavioural excesses and deficits,

situational antecedents, consequences of emitted behaviours, etc.

Administer autism, cognitive ability and adaptive behaviour measures.

Consult with parents to organise access to a multidisciplinary team to be assessed.

If necessary, provide input/prepare educational eligibility application for the student.

Review evidence-based intervention research and select, adapt or design tailored social skill development intervention.

Collaborate with the teacher to discuss evidence-based educational interventions.

Test Yourself Quiz

1. What are the early signs and symptoms of autism that school psychologists working with younger children need to be aware of?
2. How can a school psychologist support teachers who have a child or children with an ASD in their class?
3. What can school psychologists do to ensure there is open communication between the school and other health professionals involved in the care of a student with an ASD?

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Evidence-Based Assessment and Intervention for Eating Disorders in School Psychology

Catherine Cook-Cottone and Amy M. Lampard

Introduction

Eating disorders (EDs), are the third largest cause of disability for adolescent and young adult females in Australia (Mathews, Hall, Vos, Patton, & Degenhardt, 2011). Further, eating disordered behaviors such as binge eating appear to be increasing in Australia amongst male and females aged 15–24 years (Hay, Mond, Buttner, & Darby, 2008). Given the prevalence of EDs amongst adolescents, and their significant social, educational, and health impacts, EDs are of significant concern in the school environment.

In this setting, school psychologists play a key role in identifying students at risk and facilitating the ecological continuity of care for students with EDs (e.g., consistent goals and communication across treatment providers; Cook-Cottone & Scime, 2006). The school psychologist's role for working with students with EDs is multifaceted, including assessment (cognitive, academic, behavioral, and emotional; Cook-Cottone & Scime, 2006), consultation (with teachers, families, and medical personnel), and intervention (through prevention; individual, group, and family counseling; and support). In order to perform this role effectively, school psychologists require an understanding of the presentation and nature of eating disorder risk factors and behaviors among children and adolescents, an ability to identify the signs and symptoms of EDs within a school setting, knowledge of appropriate screening/assessment instruments and intervention procedures, and the ability to recognize students in need of specialized intervention and to engage appropriate referral options.

Clinical Description of Eating Disorders

Disordered eating exists on a spectrum of severity, from the use of unhealthy weight and shape control behaviors through to clinical EDs (Cook-Cottone, Kane, Keddie, & Haugli, 2013). Unhealthy weight and shape control behaviors can include dieting, skipping meals, fasting (i.e., avoiding eating for a period of 8 h or more), or the use of food substitutes. More extreme weight or shape control behaviors include the use of self-induced vomiting, laxatives, or diuretics (i.e., water pills); these behaviors are collectively termed purging behaviors (Cook-Cottone, Kane,

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et al., 2013). Binge eating also lies on the disordered eating spectrum and is characterized by: (1) the consumption of an amount of food larger than typically consumed by others in similar circumstances and (2) a sense of loss of control over eating (American Psychiatric Association, 2013). A clinical ED is present when there is an ongoing disturbance in the pattern of eating behavior that substantially impairs physical or psychosocial health and functioning (American Psychiatric Association, 2013).

The latest edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) outlines six full criteria feeding and eating disorder diagnostic categories (American Psychiatric Association, 2013). These diagnostic categories include anorexia nervosa, bulimia nervosa, binge eating disorder, pica, rumination disorder, and avoidant/restrictive food intake disorder. The clinical features of eating disorders described below are a summary of those outlined in the DSM-5 (American Psychiatric Association, 2013).This chapter will focus on assessment and interventions for anorexia nervosa, bulimia nervosa, and binge eating disorder.

Anorexia Nervosa

Anorexia nervosa is characterized by body weight significantly below that expected for age, a disturbance in the experience of body weight or shape, and an intense fear of weight gain (American Psychiatric Association, 2013). The weight trajectory for adolescents with anorexia nervosa may include either a substantial weight loss or failure to obtain expected weight (Campbell & Peebles, 2014). Concomitantly in females, menstruation is often affected; amenorrhea, or the absence of a menstrual period for three consecutive months, may be present (American Psychiatric Association, 2013). Fear of weight gain may be explicitly expressed or may be evidenced by a failure or refusal to gain weight. Eating behaviors are typically overly restrictive, such as avoidance of food groups (including food previously enjoyed) and adherence to strict calorie limits. In addition, rituals may be observed in the selection, preparation, and consumption of food. Overexercise may also be present, whereby exercise is excessive in duration or frequency and exercise routines are adhered to in a rigid or compulsive manner (American Psychiatric Association, 2013; Cook-Cottone, Kane, et al., 2013).

Bulimia Nervosa

Bulimia nervosa is characterized by repeated episodes of objective binge eating (at least once per week for 3 months) and associated inappropriate compensatory behavior designed to compensate for the calories consumed during a binge eating episode (American Psychiatric Association, 2013). Compensatory behaviors can include purging behaviors (self-induced vomiting, laxative misuse, or diuretic misuse), fasting or other severe dietary restriction, or excessive exercise. Adolescents with bulimia nervosa may present across the weight spectrum and anorexia nervosa must be excluded before a diagnosis of bulimia nervosa can be made (American Psychiatric Association, 2013).

Binge Eating Disorder

Similarly to bulimia nervosa, binge eating disorder is characterized by repeated episodes of objective binge eating, at least once per week for 3 months (American Psychiatric Association, 2013). Binge eating episodes are accompanied by a number of associated features, including rapid eating; eating until uncomfortably full; feeling guilty, depressed, or marked distress after eating; eating alone; or eating in the absence of hunger. However, unlike bulimia nervosa, those with binge eating disorder do not engage in behaviors to compensate for binge eating.

Other Eating Disorders

Additional feeding and eating disorders diagnostic categories include pica (persistent and

developmentally inappropriate eating of nonnutritive or nonfood substances), rumination disorder (frequent and persistent regurgitation of food in the absence of a gastrointestinal condition), and avoidant/restrictive food intake disorder (persistent disturbance in eating resulting in significant weight loss or nutritional deficit) (American Psychiatric Association, 2013). These feeding disorders occur in the absence of a disturbance in the experience of weight or shape and will not be covered further in this chapter. Interested readers are referred to recent reviews on pediatric feeding disorders (Bryant-Waugh, 2013; Kelly, Shank, Bakalar, & Tanofsky-Kraff, 2014).

School psychologists should be aware that eating disturbance that does not meet full criteria for one of the disorders outlined above is still of significant concern. DSM-5 outlines two residual diagnostic categories, "other specific feeding or eating disorder" and "unspecified feeding or eating disorder" for those with clinically significant feeding or eating disorder symptoms who do not meet criteria for a specific feeding or eating disorder (American Psychiatric Association, 2013). These disorders are prevalent among adolescents and are associated with significant impairment in physical (e.g., low weight, eating problems), cognitive behavioral (e.g., disturbed body image, overemphasis on food, weight, and/or shape), and interpersonal domains (Allen, Byrne, Oddy, & Crosby, 2013a; American Psychiatric Association, 2013).

Understanding Eating Disorders Among Youth

Prevalence

In the absence of data specific to Australia, the National Eating Disorder Collaboration estimates that the lifetime prevalence of EDs in Australia is approximately 9 % overall, and up to 15 % for females (National Eating Disorders Collaboration, 2012). By diagnostic category, the point prevalence of EDs in Australia is estimated to be 0.3 % for anorexia nervosa, 0.9 % for bulimia nervosa, and 2.3 % for binge eating disorder (Hay et al., 2008). EDs are more prevalent among females than males, with a prevalence ratio across all eating disorders of approximately 3:1 in both children (Madden, Morris, Zurynski, Kohn, & Elliot, 2009) and adults (Hudson, Hiripi, Pope, & Kessler, 2007). While specific prevalence estimates are unavailable, research suggests that eating disordered behaviors are at least as prevalent among indigenous as nonindigenous Australians (Hay & Carriage, 2012).

EDs are also more prevalent among older than younger adolescents. In a recent Australian population-based prospective cohort study, the point prevalence of all DSM-5 EDs at age 14 years was 1.2 % in males and 8.5 % in females (Allen et al., 2013a). At age 17 years, the point prevalence was 2.6 % in males and 15.2 % in females (Allen et al., 2013a). In a population-based sample of US adolescents aged 13–18 years, the lifetime prevalence of anorexia nervosa, bulimia nervosa, and binge eating disorder was 0.3 %, 0.9 %, and 1.6 %, respectively (Swanson, Crow, Le Grange, Swendsen, & Merikangas, 2011).

Onset

The peak age of onset for EDs is between mid-adolescence and young adulthood, differing by ED diagnostic category. Anorexia nervosa has a peak age of onset between 16 and 22 years and bulimia nervosa typically onsets between 14 and 22 years of age (Hudson et al., 2007; Stice, Marti, & Rohde, 2013). Binge eating disorder typically onsets somewhat later, with a peak period between 17 and 32 years (Hudson et al., 2007; Stice et al., 2013). In the school setting, this indicates that adolescents are most vulnerable to the onset of EDs in their senior years of high school. However, EDs are observed in children as young as 5 years of age (Madden et al., 2009), and school psychologists should be mindful that EDs can develop across the child and adolescent developmental period.

Dieting has emerged as a strong predictor of the onset of EDs and is common among Australian adolescents (Neumark-Sztainer et al.,

2006; Patton, Selzer, Coffey, Carlin, & Wolfe, 1999). An Australian population-based survey found that 20 % of males and females aged 15–24 years reported strict dieting or fasting (Hay et al., 2008). In a population-based sample of Australian secondary school students aged 15 years, 60 % of female adolescents dieted at a moderate level and 8 % dieted at a severe level (Patton et al., 1999). Moderate dieters had a 1 in 40 chance of ED onset over a 12-month period and severe dieters had almost a 20 % chance of developing an ED (Patton et al., 1999). Adolescents with disturbed body image and eating, weight or shape concerns are also at greater risk for the onset of EDs (Allen, Byrne, Oddy, Schmidt, & Crosby, 2014; Killen et al., 1996).

Course

Data on the natural course of EDs among youth in Australia are scarce. A recent Australian population-based study (the only available study using DSM-5 diagnostic criteria) indicates that EDs tend to remit over time for most adolescents, remain chronic for a smaller proportion of adolescents, and run a relapsing course for some adolescents (Allen, Byrne, Oddy, & Crosby, 2013b). Of those with an ED at age 14 years, it was observed that 40 % maintained the disorder by age 17 years and almost 19 % maintained the disorder at age 20 years. Of those with an ED at age 14 years, 7.2 % experienced a remitting and relapsing course by age 20 years. In comparison, the observed course of EDs in a US community-based sample of adolescents, aged 12–15 years at baseline, was somewhat less chronic; high rates of remission were observed over the 8-year observational period (Stice et al., 2013). EDs typically remitted within 1 year of onset (75 % for anorexia nervosa, 100 % for bulimia nervosa, and 93 % for binge eating disorder).

Comorbidities

The majority of adolescents with an ED have at least one comorbid disorder, including mood, anxiety, substance abuse, or behavioral disorders (e.g., attention deficit hyperactive disorder) (Swanson et al., 2011). Comorbidity is particularly high among those with bulimia nervosa or binge eating disorder (Swanson et al., 2011). Depression is associated with the onset of EDs among adolescents, particularly bulimia nervosa and binge eating disorder, and EDs in turn are associated with the onset of depressive disorders (Zaider, Johnson, & Cockell, 2002). School psychologists should be particularly aware of the increased risk for suicidal ideation among adolescents with EDs. Elevated suicidal ideation is observed in all ED diagnostic groups, while suicide plans and attempts are more frequent among those with bulimia nervosa and binge eating disorder in particular, compared to youth without EDs (Swanson et al., 2011). Adolescents with EDs also experience significantly greater functional impairment and lower mental health quality of life than non-eating disordered peers (Allen et al., 2013a; Stice et al., 2013). Finally, EDs are associated with significantly elevated mortality rates; one in five deaths associated with anorexia nervosa is caused by suicide (Arcelus, Mitchell, Wales, & Nielsen, 2011).

Signs and Symptoms Within a School Setting

School psychologists can play an important role in the early detection of EDs by observing and identifying a range of physical and behavioral signs or symptoms within the school environment. Childhood and adolescence are periods of rapid physical growth and development (Campbell & Peebles, 2014). Given the physical growth that occurs across this period, students presenting not just with weight loss but also with an unexplained delay in puberty, expected height, or expected weight growth should be considered or screened for the presence of an ED (Campbell & Peebles, 2014).

In addition to an abnormal growth trajectory, a range of behaviors may indicate the presence of an ED. Abnormal eating behaviors, including fussy eating, picking or nibbling at food, rumina-

tion about food, or overly restrictive eating (e.g., fasting, meal skipping, or calorie counting), may be observed (Bardick et al., 2004). Social behavior may be impacted, whereby the individual may avoid eating in the presence of others or may withdraw from friends and social situations (Bardick et al., 2004). Due to concern about weight or shape, loose fitting clothing may be worn or students may engage in body checking (i.e., repeatedly touching body parts such as arms, chin, stomach, or hips to monitor the shape of these areas) (Bardick et al., 2004). Finally, students with an ED may engage in excessive exercise, heedless of weather conditions, conflicting engagements, illness, or injury (Bardick et al., 2004). It is essential to be observant for these signs and symptoms amongst all adolescents, regardless of sex or weight status, as EDs among male or overweight adolescents can be overlooked (Campbell & Peebles, 2014). Once these warning signs are observed, screening and assessment should proceed immediately as early intervention in EDs is associated with improved outcomes (Treasure & Russell, 2011).

The Role of the School Psychologist in Eating Disorder Prevention

Since the Carter, Stewart, Dunn, and Fairburn article was published in 1997, there has been an abundance of caution and skepticism around the use of psychoeducation in the prevention of EDs. Integrating the signs and symptoms of eating disorder behavior into a didactic (i.e., instructor presenting to students) school-based ED prevention program, the authors found that despite positive outcomes at post-intervention, at 6-month follow-up the intervention group had increased in dietary restraint. Despite the small sample size ($N=46$) and weak design (i.e., no control group), this study has had a substantial impact in the field of prevention. For the first time researchers asked, "Could prevention efforts increase risk?" Currently, nearly all ED prevention programs are experiential and interactive (i.e., no longer solely didactic), to some degree embrace a positive psychology paradigm (e.g., have removed descriptions of eating disordered behaviors), and focus on enhancing protective factors (e.g., physical self-esteem, self-compassion, distress tolerance, coping skills, and media literacy) and reducing risk factors (e.g., body dissatisfaction, thin-ideal internalization, weight-related teasing and bullying, low self-efficacy, and dieting; Cook-Cottone & Scime, 2006; Cook-Cottone, Tribole, & Tylka, 2013; Puhl, Neumark-Sztainer, Austin, Luedicke, & King, 2014; Stice, South, & Shaw, 2012).

Universal Prevention

Universal prevention involves school-wide interventions that promote well-being and prevent the onset of ED risk factors (Cook-Cottone, 2009; Cook-Cottone, Kane, et al., 2013; Cook-Cottone & Scime, 2006). Often, universal prevention happens at the elementary and early middle school levels before eating disordered attitudes and beliefs crystalize (Cook-Cottone & Scime, 2006). Universal prevention programs typically address three major themes: (a) healthy nutrition and physical activity, (b) body acceptance and media literacy, and (c) increased coping and self-care (Cook-Cottone, 2009, Cook-Cottone, Kane, et al., 2013). In the text *Healthy Eating in Schools: Evidenced-based interventions to help kids thrive* (Cook-Cottone, Kane, et al., 2013), each aspect of prevention is detailed highlighting and assessing the efficacy of evidenced-based interventions. Notably, yoga and mindfulness interventions are emerging as promising interventions in prevention of EDs (e.g., Scime & Cook-Cottone, 2008; Cook-Cottone, Kane, et al., 2013; see Cook-Cottone, Tribole, & Tylka, 2013 for a review of mind/body interventions). In addition, preliminary trials in Australia have found promising results for Media Smart, an 8-session school-based media literacy program designed to reduce risk factors for eating disorders amongst young adolescents, including internalization of unrealistic appearance ideals, dieting, and body dissatisfaction (Wilksch & Wade, 2009).

Beyond specific prevention programs, school psychologists should work with school administrators and teachers to develop a healthy climate,

creating and supporting zero-tolerance policies related to appearance-based teasing, adult and teacher discussion/promoting diets and weight reduction with and in front of children (Cook-Cottone, Kane, et al., 2013; Puhl et al., 2014). Although there is currently minimal research on the efficacy of specific environmental changes in the academic school environment (see Piran, 1999), experts in the field of prevention have made suggestions for bolstering the protectiveness of the school environment. School lunch services should be screened to ensure that there are healthy options and health and science curriculum should integrate nutritional knowledge, coping strategies, and self-care (Cook-Cottone, Kane, et al., 2013). School sports coaches should receive specific training about prevention and early intervention of EDs (Puhl et al., 2014). Further, the school psychologist can provide in-service sessions for teachers addressing mental health in general and highlighting important adolescent health issues such as EDs (Cook-Cottone & Scime, 2006). Professional development for teachers can include exploring ways to integrate prevention information into the curriculum, such as media literacy and nutrition, how to effectively respond to harassment and weight-related teasing, and conceptualizing exercise as a tool for health maintenance instead of weight loss. Further, curriculum can be reviewed for risk-enhancing topics such as public weigh-ins in physical education class and calorie counting in health class (Cook-Cottone, Kane, et al., 2013). For a list of resources for prevention of EDs for school personnel, see Cook-Cottone, Kane, et al. (2013).

Secondary Prevention

At this level, students thought to be at risk are targeted (Cook-Cottone, Kane, et al., 2013; Cook-Cottone & Scime, 2006). Students are identified as at-risk through school-wide screens (see section below) as well as by teachers and other school personnel or concerned friends (Cook-Cottone, Kane, et al., 2013). Frequently fellow students or school personnel notice weight loss, food restriction or dieting, purging, or compulsive exercise and turn to a school psychologist or counselor for support. Other times, parents contact school psychologists for support when they suspect eating disorder behavior or risk. Further, participation in sports that emphasize esthetics or weight can also place students at risk (e.g., dance, cheerleading, wrestling, boxing, crew (rowing); Cook-Cottone, 2013).

It is believed that prevention at this level is the most successful (Stice et al., 2012). Frequently, secondary prevention efforts happen in the later middle school and high school levels as students have begun to internalize eating disordered beliefs such as the thin and lean ideal body type, diet, and engage in some eating disordered behaviors (e.g., fasting, food restriction, purging, compensatory exercise; Cook-Cottone & Scime, 2006). Successful programs target risk factors (e.g., body dissatisfaction) and are multisession (Stice et al., 2012). Two secondary prevention interventions found to be effective are Regulation of Cues (ROC; Boutelle, Zucker, Peterson, & Rydell, 2011) and the Body Project (Stice & Presnell, 2007). The ROC intervention was designed to help students who have lost a connection with their hunger and satiety cues through provision of practical and engaging tools for the management of food cravings. The Body Project was designed to help early-to-late adolescent girls accept their bodies, resist pressure to conform to culturally sanctioned idealized images, improve mood, and decrease ED symptoms. It can be effectively delivered in school, by school personnel (Cook-Cottone, Kane, et al., 2013; Stice et al., 2012). Cook-Cottone, Tribole, et al.'s (2013) text, *Healthy Eating in Schools: Evidence-based Intervention to Help Kids Thrive,* details guidance and resources for school professionals that would like to commence a prevention program.

The Role of the School Psychologist: Risk Assessment and Referral

The earlier that eating disordered risk and behavior is detected and treated, the better the prognosis (Cook-Cottone & Scime, 2006). As part of the

schools mental health team, the school psychologist can help to organize ongoing teacher and administrator awareness of ED risk factors (e.g., dieting, food/lunch avoidance; excessive exercise; weight loss or failure to make expected developmental gains in height and weight; excessive pickiness; food, weight, and/or shape obsession; odd eating rituals; hiding weight loss by wearing baggy clothes; frequent bathroom after meals; peer concerns, and exhibiting moodiness and withdrawal; Cook-Cottone & Scime, 2006). As outlined earlier, students engaging in severe dieting are at an increased risk for ED onset and should be monitored closely. Adolescents with insulin-dependent diabetes mellitus may also require screening, as they are at an increased risk of developing an ED (Jones, Lawson, Daneman, Olmsted, & Rodin, 2000).

Each school should have a designated ED resource person (e.g., the school psychologist). This person can handle all ED screening and referrals (Cook-Cottone & Scime, 2006). The go-to person should be well versed in how to approach a child at risk, communicate with parents, and how to make referral to the appropriate community treatment providers (Cook-Cottone & Scime, 2006). Further, the ED resource person should have resources ready for parents.

Screening

The school psychologist can administer screening tools to assist in the identification of EDs. The SCOFF (Sick, Control, One Stone, Fat, Food), a brief screening instrument developed for use by nonspecialists (Morgan, Reid, & Lacey, 1999), has been utilized in school settings (e.g., Hautala et al., 2009). The SCOFF questionnaire consists of five questions that address the core features of anorexia nervosa and bulimia nervosa:

1. Do you make yourself Sick because you feel uncomfortably full?
2. Do you worry you have lost Control over how much you eat?
3. Have you recently lost more than One stone (i.e., 6.35 kg) in a 3-month period?
4. Do you believe yourself to be Fat when others say you are too thin?
5. Would you say that Food dominates your life?

A response of "yes" to two or more questions indicates the potential presence of an ED and the need for further specialized clinical assessment. Pooled data across 15 studies indicate that the SCOFF questionnaire performs well as a screening tool for EDs, correctly identifying 88 % of those with an ED and 93 % of those without an ED (Botella, Sepúlveda, Huang, & Gambara, 2013). While the SCOFF questionnaire has not been evaluated in an Australian school context, it has been shown to be a useful ED screening tool in school settings across a range of countries, including China, Finland, and Spain (Hautala et al., 2009; Leung et al., 2009; Muro-Sans et al., 2008).

More detailed questionnaire assessment tools are also available if required. The Eating Disorder Examination Questionnaire (EDE-Q; Fairburn & Beglin, 1994) is a 28-item self-report measure of ED symptoms and is freely available online (http://www.credo-oxford.com/pdfs/EDE-Q_6.0.pdf). The EDE-Q can be used to assess the frequency of ED symptoms (e.g., binge eating, purging, excessive exercise) and the severity of associated psychopathology, including dietary restraint, and weight, shape or eating concerns. Normative data on the EDE-Q are available for both female and male Australian adolescents (Mond et al., 2014) and the EDE-Q has demonstrated good psychometric properties (see Berg, Peterson, Frazier, & Crow, 2012 for a review). Alternative questionnaire instruments include: (1) the Eating Disorders Checklist (EDC; Leon, Fulkerson, Perry, & Cudeck, 1993), a 24-item survey assessing symptoms of anorexia nervosa and bulimia nervosa, including weight fluctuations, weight gains and losses, dieting, menstrual history, and past and current history of diagnosed EDs; (2) the Eating Disorders Inventory-3 (EDI-3; Garner, 2004), a 91-item measure of the psychological and behavioral characteristics associated with EDs; and (3) the Eating Attitudes Test (Garner, Olmsted, Bohr, & Garfinkel, 1982; Wells, Coope, Gabb, & Pears, 1985), a 26-item

self-report measure of dieting, food preoccupation, purging behaviors, and social pressure to eat. A children's version of the Eating Attitudes Test has also been designed and is suitable for boys and girls under the age of 15 years (Maloney, McGuire, & Daniels, 1988).

The Eating Disorder Examination (EDE) (Cooper & Fairburn, 1987), a semi-structured diagnostic interview for EDs, may also be used. Normative data for Australian female adolescents are available (Wade, Byrne, & Bryant-Waugh, 2008) and a child version of the EDE has also been developed (Bryant-Waugh, Cooper, Taylor, & Lask, 1996). However, while this interview provides a thorough assessment of ED features, given the administration time (approximately 40–60 min) it would typically be utilized by the treating clinician following early identification and referral by the school psychologist.

Eating Disorder Treatment

Once symptomatology reaches clinical levels, individuals with an ED require multifaceted and comprehensive care (Cook-Cottone, 2009; Cook-Cottone & Scime, 2006; Rosen & The Committee on Adolescence, 2010). School psychologists can play a critical supporting role in intervention and must be aware of best practices so that they can fully support students and families (Cook-Cottone & Scime, 2006). Interventions for eating disordered behavior involve an interactive, three-component approach: (a) medical assessment and monitoring, (b) nutritional guidance, and (c) psychological and behavioral treatment (Cook-Cottone, 2009; Cook-Cottone & Vujnovic, 2016; Rosen & The Committee on Adolescence, 2010). Successful treatment results from the effective collaboration across the three arms of treatment with a goal of supporting the client toward a healthier and more intuitive relationship with food, physical activity, self-care, and emotional regulation (Cook-Cottone, Kane, et al., 2013). Frequently, client- and disorder-specific goals for treatment are integrated into the treatment plan (e.g., interpersonal effectiveness skills, family communication sessions, scheduling pleasant events, or distress tolerance). The sections below describe treatments for EDs. Depending on the focus of the treatment, the treatments reviewed vary in their integration of each of the components of ED treatment (i.e., medical, nutritional, and psychological). Notably, most of the research on evidence-based interventions for EDs has been conducted predominantly on young, adult females (Cook-Cottone & Vujnovic, 2016).

Anorexia Nervosa (AN)

Notably, treatment of AN is often complicated by the physical and neuropsychological effects of starvation. Physically, starvation can affect every organ system of the body and is associated with a variety of negative outcomes, such as suppression of the hypothalamic-pituitary axis and menstrual function, cardiac complications including the growth and development of the heart muscle, electrolyte anomalies, stress fractures, failure to make adequate growth milestones, disrupted thyroid function, fatigue, and generalized weakness (Rosen & The Committee on Adolescence, 2010; Sidiropoulos, 2007). Neuropsychological and emotional challenges include excessive focus on detail, rigid thinking, difficulty with problem-solving, depression, and mood dysregulation (Cook-Cottone, Kane, et al., 2013; Lock et al., 2013; Rosen & The Committee on Adolescence, 2010; Smith & Cook-Cottone, 2011). Accordingly, treatment begins with weight and nutrition restoration either independently or in parallel with psychological treatments (Hartmann, Weber, Herpertz, Zeeck, & The German Treatment Guideline Group for Anorexia Nervosa, 2011; Rosen & The Committee on Adolescence, 2010). For many patients, as weight and nutrition status stabilize the emotional and psychological symptoms associated with starvation are reduced or ameliorated (Grilo, 2006; Rosen & The Committee on Adolescence, 2010).

Weight restoration and nutritional rehabilitation can be done individually or with the patient's family (Cook-Cottone & Vujnovic, 2016; Rosen & The Committee on Adolescence, 2010).

Options include outpatient therapy, day treatment programs (for patients who require more support than outpatient care and less than 24-h hospitalization), and hospital-based treatment (Rosen & The Committee on Adolescence, 2010). Hospital-based treatment is reserved for patients with high-risk symptomatology or medical complications, such as refusal to eat; weight at less than 75 % of expected weight; body fat below 10 %; excessively low blood pressure, heart rate, and temperature; severe electrolyte issues; and/or suicidal risk (see Rosen & The Committee on Adolescence, 2010 for a complete listing of criteria).

Typically, the weight and nutritional restoration aspect of treatment is managed by a nutritionist and/or the physician on the treatment team. The patient is placed on a meal plan designed to address nutritional deficits and restore weight at a safe and emotionally manageable rate (Cook-Cottone & Vujnovic, 2016; Rosen & The Committee on Adolescence, 2010). Weekly nutritional and medical sessions are scheduled to monitor the effectiveness of the meal plan as well as weight and medical status. Family-based interventions (e.g., Maudsley Method) are intensive outpatient, family-based treatments that focus on weight and nutritional restoration within the home setting (Rosen & The Committee on Adolescence, 2010; Smith & Cook-Cottone, 2011). The family is considered central to recovery and plays a strong role in meal planning and support of the refeeding and nutritional rehabilitation process (Smith & Cook-Cottone, 2011). Successful family interventions support the patients through restoration of weight, patient control of healthy eating, and a return to the challenges typical of adolescent development. Frequently, the family is coached through a family meal so that they can learn and practice the most effective ways to support eating (see Cook-Cottone & Smith, 2012, for a review). Family interventions have garnered substantial empirical support with positive outcomes (e.g., remission of physical symptoms, weight restoration, reduced drive for thinness) and significant benefits persisting to 6 and 12 months posttreatment (Couturier, Kimber, & Szatmari, 2013; Smith & Cook-Cottone, 2011). Meta-analytic review suggests that family-based treatments appear to be about as effective as individual therapies (e.g., supportive, ego-oriented, and cognitive behavioral therapy) at the end of treatment with benefits of continued family support demonstrated in superior longer term outcomes (see Couturier et al., 2013).

It is important to note that practice guidance relies on an accumulating body of evidence noting that much more research is needed. Several issues tend to interfere with effective research on intervention efficacy among those with AN. First, low incidence rates lead to small treatment groups, lack of control groups, and insufficiently powered studies (Cook-Cottone & Vujnovic, 2016; Grilo, 2006; Hartmann et al., 2011; Smith & Cook-Cottone, 2011). Also, patients recruited for intervention research are often at various stages of recovery, levels of starvation, and weight making generalizable outcomes challenging, adding substantially to variations in treatment response and outcomes. At times, patients experience substantial physical limitations (e.g., cannot engage in specific activities due to premature osteoporosis) or have been prescribed medical limitations due to a fragile medical state (e.g., restricted physical exercise due to cardiac symptoms) and are not readily comparable to patients without these limitations. Further, given the medical complications of starvation and other comorbid physical and mental diagnoses, patients are frequently on medications for issues such as sleep and anxiety also affecting eligibility for research participation (Cook-Cottone & Vujnovic, 2016). Although some suggested the potential effectiveness of atypical antipsychotic medication to treat AN, there is insufficient empirical evidence to support use (e.g., replicated trials, meta-analyses). At this time, there is no empirically supported psychopharmacological treatment for AN (see Kishi, Kafantaris, Sunday, Sheridan, & Correll, 2012; See also, Lebow, Sim, Erwin, & Murad, 2013).

Treatment of AN often involves medical and nutritional team members working with a mental health professional who implements one of the empirically supported psychological interven-

tions. The school psychologist serves a supportive role working with treatment team members to align interventions and supports at school with treatment conducted in outpatient and inpatient settings (see upcoming section on the role of the school psychologist). These include cognitive behavioral therapy (CBT), cognitive remediation therapy (CRT), and interpersonal therapy (IPT). CBT involves exploration of the triggers, emotional, cognitive, and associated behaviors as they related to short-term and long-term consequences (Cook-Cottone & Vujnovic, 2016; Fairburn, Cooper, & Shafran, 2003). As with traditional CBTs, cognitive distortions are addressed including conceptualization of food as unsafe and weight restoration as devastating and unmanageable. Interpersonal psychotherapy and modified CBT frequently address disorder-specific issues such as perfectionism, body image, media literacy, distress tolerance, and emotional identification and regulation (Cook-Cottone, Kane, et al., 2013; Hartmann et al., 2011). Of note, IPT and CBT are traditionally conducted in outpatient and inpatient settings. The school psychologist plays a supportive role as a treatment team member aligning school supports with the treatment conducted out of school.

CRT is relatively new and addresses the challenging cognitive style often presented by those with AN, such as inflexibility, focus on details, and weak central coherence (Lock et al., 2013). Through teaching and practicing of cognitive exercises designed to enhance cognitive functioning, it is believed that patients can learn to function more effectively in their lives (Lock et al., 2013). Treatment sessions do not focus directly on weight or eating, rather sessions include teaching of cognitive skills and discussion regarding how cognitive skills might be helpful in life. Similarly, the school psychologist would support this work within the school setting working as team member to align school supports with outpatient care.

Bulimia Nervosa (BN)

As with AN, psychological interventions are typically implemented in conjunction with medical doctors and nutritionists to address meal planning and ongoing weight and medical assessment. Monitoring of electrolytes and cardiac symptomatology is particularly important for patients with BN (Mehler, 2011). In terms of the psychological aspects of treatment of BN, IPT and CBT are considered to have empirical support with Dialectic Behavioral Therapy (DBT) emerging as a promising treatment (Cook-Cottone & Vujnovic, 2016; Erford et al., 2013; Grilo, 2006; McIntosh, Carter, Bulik, Frampton, & Joyce, 2010). Specifically, IPT addresses interpersonal issues that are believed to be the cause of emotional distress and low self-esteem. Binging and purging are thought to be tools that patients use to cope with seemingly unbearable feelings and distress (Grilo, 2006). Treatment goals address interpersonal functioning, emotional distress, and self-esteem in order to remove the underlying trigger of disordered eating behaviors (Cook-Cottone & Vujnovic, 2016; Grilo, 2006; McIntosh et al., 2010). It is important for the school psychologist to work with the outpatient treatment provider to be sure support and intervention conducted within the school setting aligns with work being done in the outpatient setting.

CBT for BN integrates psychoeducation and identifies and addresses cognitive distortions about food, eating, weight, and shape (Grilo, 2006; McIntosh et al., 2010). Overall CBT has been found superior to other treatments including behavior therapy, short-term psychotherapy, family therapy, and pharmacotherapy (Erford et al., 2013). Key mechanisms of change appear to be the remediation of cognitive distortions associated with body shape and size, assertiveness training, and training in social and communication skills and problem-solving (Erford et al., 2013). Further, the cues and triggers for binging and purging are explored and strategies are taught to address triggers and reduce eating disordered behaviors. Often, relapse prevention is a component. Behaviorally, there are two points at which a bulimic episode can be stopped: pre-binge or pre-purge (McIntosh et al., 2010). Patients work with their therapist to identify the cues and triggers that lead to binging as well as purging. In

exposure therapies, the patient is exposed to pre-binge cues (e.g., the sight and smell of foods) and/or pre-purge cues (e.g., eating of foods that trigger high risk for purging) without engaging in eating disordered behavior. Research suggests that CBT and pre-binge cue exposure reduces cue reactivity, food restriction, body dissatisfaction, and depression (McIntosh et al., 2010). Both exposure groups showed decreased long-term abstinence for binge eating and lower rates of purging (McIntosh et al., 2010).

DBT is a mindfulness-based, individual and group therapy designed to increase one's ability to experience and tolerate the present moment with a sense of openness and purpose (Musada & Hill, 2013). Empirically supported for use among patients with affect dysregulation and borderline personality disorder, DBT addresses four areas of functioning: emotional regulation, distress tolerance, interpersonal effectiveness, and mindfulness (Cook-Cottone & Vujnovic, 2016; Musada & Hill, 2013; Safer, Telch, & Agras, 2001). When working with patients with BN, the standard protocol is modified in various ways depending on the study cited. These include removal of the interpersonal effectiveness module, removal of individual session, removal of group session, and addition of BN-specific content (e.g., urge surfing, mindful eating, self-monitoring of eating behaviors and urges (Bankoff, Karpel, Forbes, & Pantalone, 2012). Overall, BN findings have been promising showing reduction in binge/purge behaviors, mood and affect, and treatment intentions (Bankoff et al., 2012; Safer, Robinson, & Jo, 2010). As with IPT and CBT, the school psychologist would work closely with the outpatient therapist in order to be able to effectively reinforce work conducted in the inpatient setting. For example, the school psychologist could support the patient's work in the areas of distress tolerance and emotional regulation by reinforcing coping skills that were being introduced and practiced within the outpatient setting.

It is important to note that three other treatment modalities may be helpful. First, guided self-help either done independently or with support using a manualized intervention text or a CD-ROM or internet-guided program may help reduce binging, purging, laxative use, and body dissatisfaction (Beintner, Jacobi, & Schmidt, 2014; Erford et al., 2013). Second, there is some evidence that fluoxetine (at a dose of 60 mg/day) reduces binging and purging and associated psychological features (Shapiro et al., 2007). Further, there is only preliminary and weak evidence for incremental efficacy of combining medication with treatments such a CBT, IPT, and DBT (Shapiro et al., 2007). The school psychologist can refer the patient and the patient's family to a psychiatrist or other medical doctor specializing in the treatment of disordered eating to review medication options. Third, mindfulness and yogic approaches may be beneficial as an adjunct to other treatments, although further research is necessary (e.g., Carei, Fyfe-Johnson, Beuner, & Brown, 2010; Cook-Cottone, Beck, & Kane, 2008; Klein & Cook-Cottone, 2013). Mind and body integration are targeted using yoga postures, breath techniques, and a focus on body and breath awareness (Carei et al., 2010; Cook-Cottone et al., 2008). The study of interventions for BN is plagued by many of the same challenges as AN (Cook-Cottone & Vujnovic, 2016). Accordingly, practitioners should treat individuals based on assessment and specific needs targeting IPT, CBT, DBT, self-help, mindfulness and/or yoga techniques, and medication interventions as appropriate (Cook-Cottone & Vujnovic, 2016).

Binge Eating Disorder (BED)

Research exploring the efficacy of treatment of binge eating disorder (BED) is emerging with IPT and CBT showing large effect sizes in the reduction of binge eating (Vocks et al., 2010). Interventions that addressed eating patterns and targeted the reductions of binge eating were most effective with additional effects including reduced overconcern with eating, weight, and shape and improvement in eating and body-related cognitions (Vocks et al., 2010). Adaptations of DBT also show promise for BED (Klein, Skinner, & Hawley, 2013; Musada & Hill, 2013). Adaptations include targeting emo-

tional regulation skills and eating disorder specific behaviors by addressing the link between attempts to control painful emotions and disordered eating behavior (Safer et al., 2010). In addition, self-help may also be effective in reducing binge eating frequency and cognitive symptoms associated with eating, weight, and shape (Beintner et al., 2014; Vocks et al., 2010). Finally, mindfulness-based eating awareness training (MB-EAT; Musada & Hill, 2013) may reduce frequency of binge days, compulsive overeating, and symptoms associated with depression (Musada & Hill, 2013). Specifically, MB-EAT provides practice in nonjudgmental awareness and acceptance of thoughts, feelings, and physical sensations instead of engagement in binge eating behaviors (Musada & Hill, 2013). As detailed below, the school psychologist should work with the treatment team in order to effectively support therapeutic efforts conducted in the outpatient treatment setting.

The Role of the School Psychologist in Treatment

Adequate support in the school setting is a critical aspect of the treatment and recovery process (Cook-Cottone, 2009; Cook-Cottone & Scime, 2006). Accordingly, treatment support is most efficiently conducted within the context of a positive body and ED prevention oriented school environment which holds a zero-tolerance policy on weight-related teasing and bullying, no in-school advertising of foodstuffs or products that emphasize a thin or lean ideal, and encourages healthy eating and moderate, healthy exercise (Cook-Cottone, Kane, et al., 2013; Cook-Cottone & Scime, 2006). In both the case of supporting a student while in intensive day treatment or inpatient care as well as when the student is being reintegrated after intensive care, the school psychologist can serve as a school contact for the treatment team, student advocate, supportive–in school counseling, and provide consultation with school faculty, administration, and staff (Cook-Cottone & Scime, 2006).

Treatment Team Support

When a student's symptoms are severe enough to warrant day treatment or inpatient care, the school psychologist can play a vital role in supporting the maintenance of academic program and student/school connection (Cook-Cottone & Scime, 2006). The school psychologist, or identified school contact person, should be the primary source for communications with out-of-school treatment providers (Cook-Cottone & Scime, 2006). Releases of information should be completed for all members of the team and shared with the family (Cook-Cottone & Scime, 2006). In the case of extended absences from school (note that hospital stays can range from 30 to 180 days), the school psychologist can help the treatment provider develop an academic program that is consistent with school curriculum and expectations and keep the student on track to either move to the next grade or graduate (Cook-Cottone & Scime, 2006).

School Reintegration

If a student has been out of school for day treatment or extended inpatient treatment, his or her reentry into school is an important aspect of transition (Cook-Cottone & Scime, 2006). The school psychologist should work with the treatment team to plan a successful reintegration strategy. There are a variety of issues to consider at reentry: in-school counseling sessions, medical monitoring (as supported by the school nurse), release from physical education classes, meal monitoring and/or meal support, and communication with treatment team and family (Cook-Cottone, 2009; Cook-Cottone & Scime, 2006). It is important to address academic considerations such as reduced workload, alternative assignments for some physical education requirements, extended time on tests, peer tutoring for missed coursework, copies of class notes, and access to quiet study locations (Cook-Cottone, 2009; Cook-Cottone & Scime, 2006; Manely, Rickson, & Standeven, 2000).

The school psychologist, with appropriate knowledge and training in EDs, can serve as a consultant and advocate for the student reintegrating to school. Providing information on the physical, emotional, and neuropsychological challenges of a student recovering from an ED can be very helpful in the development of empathy and compassion among the school faculty, staff, and administrators (e.g., cognitive rigidity, harm avoidance, slower processing; Rosen & The Committee on Adolescence, 2010). Despite being on a pathway to recover, a student with an ED will still be required to see their mental health professional once a week, as well as the medical doctor and nutritionist about once per week, for a total of up to three distinct out-of-school appointments per week (Cook-Cottone, 2009). Not only are these appointments stressful for the student they also contribute to missed classes and learning opportunities at school, further complicating continued academic progress and frustrating teachers (Cook-Cottone, 2009). The school psychologist can work with the family and treatment providers to help develop a schedule that minimizes missed classes and academic impact (Cook-Cottone & Scime, 2006).

In-school supportive counseling should be aligned with out-of-school services and support. School-based counseling should enhance positive coping strategies; help return focus to school, friends, and the here-and-now; and increase class attendance. Deep emotional processing during school hours can be fatiguing and shift focus away from school tasks. As more complex emotional and psychological issues are difficult to process and can deplete a student's cognitive and coping resources, they are best addressed in outpatient settings near the end of the day so as to interfere less with school performance.

Conclusion

The school psychologist has an important role to play in identifying students at risk for EDs, implementing prevention programs within the school setting, referring at-risk students for additional assessment and/or treatment, and liaising with external treatment teams to support students with EDs. This chapter provides the school psychologist with the information necessary to understand the nature and prevalence of EDs, conduct brief assessments with at-risk students, make appropriate referrals, and to confidently support the treatment team and recovering student.

Test Yourself Quiz

1. What are the signs and symptoms by which you might identify students in your school who are at risk for an eating disorder?
2. A staff member identifies a student at your school who has recently lost weight and withdrawn from peers. How would you proceed?
3. What are the steps that you could take at your school to support a student who is returning to school following inpatient treatment for an eating disorder?

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Understanding and Responding to Crisis and Trauma in the School Setting

Catherine E. Wood, Janine Domingues, Jamie M. Howard, and Stephen Said

This chapter examines the diagnosis, assessment, and treatment of childhood trauma and posttraumatic stress. The most effective primary, secondary, and tertiary interventions, and preventions for children exposed to trauma are discussed. The application of different approaches informed by the trauma literature, including crisis management in schools and trauma-sensitive classrooms, is also presented. The continued need for the development and implementation of novel trauma-informed strategies in educational settings for children is reinforced with key challenges and future directions highlighted.

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Definition of Crisis and Trauma

A traumatic event is a dangerous situation in which children believe that their life or someone else's is in danger. It can happen to children directly or they can witness it happening to someone else. They can also learn about a traumatic event happening to someone with whom they are close (American Psychiatric Association [APA], 2013; Australian Centre for Posttraumatic Mental Health [ACPMH], 2013; Little, Akin-Little, & Gutierrez, 2009). Examples of traumatic events include being physically hurt by an adult or another child, experiencing a natural disaster, witnessing school or domestic violence, or learning that a loved one was badly hurt in an accident. Some traumas are isolated events while others are continuous, such as ongoing child abuse (Deblinger, Cohen, & Mannarino, 2012; Malchiodi, 2015; Nixon, Ellis, Nehmy, & Ball, 2010). Typically, children experience some difficulties in the days and weeks following a traumatic incident, including clinginess to parents and/or teachers, difficulties concentrating and sleeping, and being more jumpy and easily startled (The National Child Traumatic Stress Network [NCTSN] Core Curriculum on Childhood Trauma Task Force, 2012). For some children, the presentation of trauma-related symptoms becomes more complex and impacts significantly on psychosocial, cognitive, and emotional functioning (Brassard, Rivelis, & Diaz, 2009; Fitzgerald &

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Cohen, 2012; Jaycox, Morse, Tanielian, & Stein, 2006; Margolin & Vickerman, 2007; Terr, 1981).

Disorders

Acute Stress Disorder (ASD)

Children who experience significant difficulties in the days and weeks following a traumatic incident might have an Acute Stress Disorder (ASD). In the most recent edition of the Diagnostic and Statistical Manual for Mental Disorders (DSM-V) ASD is reserved for children who exhibit at least nine symptoms of trauma-related distress (from the categories of intrusive thoughts, negative mood, dissociation, avoidance, and physical arousal) and functional impairment (APA, 2013). The DSM is used by many Australian psychologists to guide diagnostic decision-making for mental health disorders (Korton & Henderson, 2000).

Impairment in functioning is often what distinguishes typical from atypical reactions to trauma in the aftermath of a traumatic event (Kassam-Adams, Palmieri, Kohser, & Marsac, 2012). Put simply, this means that children's core activities are compromised, namely to attend school, learn, have fun doing activities that they enjoy, make and keep friends, and to love their families (Kassam-Adams et al., 2012; Kassam-Adams, Marsac, & Cirilli, 2010). Some Australian research has shown that between 14 and 25% of children develop ASD after a single traumatic incident (see for example Bryant, Salmon, Sinclair, & Davidson, 2007). Other studies have suggested prevalence rates of between 8 and 25% following an assault or traffic-related incident (Kassam-Adams & Winston, 2004; Meiser-Stedman, Yule, Smith, Glucksman, & Dalgleish, 2005). The perceived dangerousness of the event explains some of the variability in these prevalence rates as does the measure used to assess the ASD symptoms (Kassam-Adams & Winston, 2004; Koucky, Galovski, & Nixon, 2012; Meiser-Stedman et al., 2005). Some researchers have also questioned the utility of dissociation symptoms when examining the prevalence of ASD in children (Meiser-Stedman et al., 2005).

Australian Centre for Posttraumatic Mental Health (2013) recommended that active treatment for ASD should be delivered 2 weeks after exposure to the traumatic event to allow for a natural recovery to take place. This also allows teachers and other adults to monitor a child's response. While the symptoms (e.g., poor concentration, anger, withdrawal) shown by some children might increase during this time, other children might "bounce back" to their usual functioning (Bonanno, 2004; Koucky et al., 2012). Alternatively, some American studies have suggested that it might be useful to intervene more immediately after a trauma with a specific intervention that focuses on coping rather than processing the trauma (Berkowitz, Stover, & Marans, 2011). Despite these differing opinions about when to initiate treatment for ASD, it is widely accepted that children should continue to attend school in the 2 weeks following a traumatic event and uphold familiar routines (or establish new ones) in order to prevent more significant and long-standing functional impairment (NCTSN Core Curriculum on Childhood Trauma Task Force, 2012).

Posttraumatic Stress Disorder (PTSD)

While most children will recover naturally from a traumatic event without needing intervention (Scheeringa, 2011) around one in six (16%) develop PTSD (Alisic et al., 2013; Resick, Monson, & Chard, 2008). As for ASD, prevalence estimates vary depending on variables such as the method of assessment, the informant (i.e., parent, child, teacher), the nature and severity of the traumatic incident, and the age/gender of the child (Alisic et al., 2013; Kassam-Adams & Winston, 2004; McDermott, Cobham, Berry, & Kim, 2014; Salmon & Bryant, 2002). This is the case for both national and international samples (Bokszczanin, 2007; Chen, Lin, Tseng, & Wu, 2002; Green et al., 1991; McDermott et al., 2014).

Numerous studies have shown that girls are more likely to develop PTSD than boys, and that

this gender difference continues into adulthood (e.g., Green et al., 1991; Masten & Osofsky, 2010; Stein, Walker, & Forde, 2000; Trickey, Siddaway, Meiser-Stedman, Serpell, & Field, 2012). There are mixed findings for age (Chen et al., 2002). Some studies have found that younger children are more vulnerable to the effects of trauma than older children (Chen et al., 2002) particularly if it impacts on the quality of their family relationships (Osofsky, 2004; Pfefferbaum, 1997). Other studies have shown fewer PTSD symptoms in younger children or minimal effect for age (e.g., Green et al., 1991; Trickey et al., 2012). What does seem to be clear is that there are developmental differences in the presentation of PTSD symptoms (Scheeringa, 2011).

Human-to-human assault is associated with higher rates of PTSD than exposure to natural disasters or unintentional accidents in children and adults. Interpersonal and repeated exposure to trauma also increases the risk of developing more severe symptoms, including those associated with PTSD (Osofsky, 2004; Salmon & Bryant, 2002). Incidents that are more life threatening and negatively affect a child's typical family and social experience are also associated with an increased risk for PTSD (Salmon & Bryant, 2002). The presence of a supportive and loving family is a key protective factor (Crenshaw, 2013; Perry, 2009). At a community level, a prompt return to school is also protective (Crenshaw, 2013). Having a school psychologist on hand to provide the necessary support and psychoeducation regarding the impact of trauma can be an important part in assisting this return to school (Jaycox, Kataoka, Stein, Langley, & Wong, 2012; Kataoka, Langley, Wong, Baweja, & Stein, 2012).

While PTSD and ASD share similar symptoms, the time frame for diagnosis is different. PTSD cannot be diagnosed until 1 month post-trauma (APA, 2013). This is to allow for the natural recovery process to unfold and to avoid pathologizing typical posttraumatic reactions (Bryant, 2003; Koucky et al., 2012; Scheeringa, 2011). The four main clusters of PTSD symptoms are: (1) reexperiencing symptoms; (2) avoidance; (3) negative changes in cognitions and mood; and (4) hyperarousal (APA, 2013).

Examples of reexperiencing symptoms include intrusive trauma-related thoughts, nightmares, and feeling upset or physically reactive when reminded of the traumatic event. Avoidance symptoms develop because cues in the environment become paired with the traumatic event, and these cues trigger a fear response when presented in the absence of the trauma (Resick et al., 2008). For example, New York City school children experienced this after the September 11th terrorist attacks on the World Trade Center (Hoven et al., 2004). The attacks occurred on a pleasant sunny day, and many children and adults noticed that they felt more anxious (e.g., worried, racing heart) on subsequent temperate cloudless days. With time, these aversive associations fade, but they persist when children have PTSD (Resick et al., 2008). Such children will also try to avoid people, places, conversations, and activities that remind them of the trauma. The third cluster of symptoms describes how a child's worldview changes after a traumatic event. For example, children might blame themselves for the incident and believe that they are in some way bad. They might also think that the world is unsafe and that it is hard to trust anyone. These changes in beliefs co-occur with changes in emotions, such that children might feel more sadness, anxiety, and anger post-trauma (Fitzgerald & Cohen, 2012). They can also develop emotional numbing, meaning that they do not experience the typical range and depth of emotions for a child of his/her age (e.g., they might not cry when sad) (APA, 2013). Hyperarousal can present as guardedness, an increased startle response, and difficulties concentrating and sleeping (APA, 2013; Salmon & Bryant, 2002). At school, hyperarousal might manifest as regular headaches, stomach aches, reduced concentration, and/or anger outbursts (Fitzgerald & Cohen, 2012). Taken together, these four clusters of symptoms (i.e., reexperiencing symptoms, avoidance, negative changes in cognitions and mood, hyperarousal) experienced over a 4-week period, and with functional impairment, indicate a failure to recover from trauma exposure and warrant a diagnosis of PTSD (APA, 2013).

Developmental Trauma Disorder (DTD)

Children who have been repeatedly traumatized by caregivers are at an increased risk of long-term cognitive and psychological impairment (Crenshaw, 2013; Roth & Sweatt, 2011) and might show different symptoms/responses to those children who have been affected by a single traumatic incident (Gillies, Taylor, Gray, O'Brien, & D'Abrew, 2013). There is an argument that this type of complex trauma results in symptoms that warrant the separate diagnosis of Developmental Trauma Disorder (DTD) which is similar to Complex PTSD (C-PTSD) in the adult literature (Van der Kolk, 2005a, 2014; Van der Kolk et al., 2009). However, neither the APA nor the World Health Organization (WHO) includes DTD or C-PTSD in their diagnostic systems (Mooren & Stöfsel, 2015). According to Van der Kolk (2014) the APA rejected the proposal for DTD in the DSM-V because of an apparent lack of evidence that it represented a separate syndrome. Nonetheless, supporters of the diagnosis maintain that there are many children who have experienced prolonged and cumulative interpersonal trauma who show symptoms that are not captured by the current PTSD criteria in the DSM (Ford et al., 2013; Van der Kolk, 2005a, 2014). These symptoms are associated with dysregulation in the areas of: affect and physiological functioning; attention and behavior; and self and relationships (Van der Kolk, 2014; Van der Kolk et al., 2009).

Early relational trauma, which Schore (2013) argued is the "quintessential expression of complex trauma" (p. 3) is thought to impact negatively on brain structures involved in emotional, cognitive, social, behavioral, and physical development (Anda et al., 2006; Lupien, McEwen, Gunnar, & Heim, 2009; Perry, 2009; Roth & Sweatt, 2011; Twardosz & Lutzker, 2010). These negative developmental outcomes are understood to be related specifically to neural networks that mediate a stress response (Van der Kolk, 2014). The ever expanding literature in this field (e.g., Frewen & Lanius, 2015; Roth & Sweatt, 2011; Schore, 2013; Siegel, 2011; Van der Kolk, 2014) makes it imperative for school psychologists to understand the neurobiological implications of chronic and complex trauma, and to incorporate such an understanding into their treatment with children (Dwyer, O'Keefe, Scott, & Wilson, 2012; Fitzgerald & Cohen, 2012).

Assessment of Symptoms

It is recommended that school psychologists be familiar with trauma-related symptoms and conduct multimodal and multi-person assessments that afford a thorough history (Fitzgerald & Cohen, 2012; Kataoka et al., 2012; Salmon & Bryant, 2002; Scheeringa, 2011). There are a variety of well-validated and reliable tools for assessing these symptoms, including the Schedule for Affective Disorders and Schizophrenia for School-Aged Children (K-SADS:Kaufman et al., 1997). This semi-structured interview was designed to assess psychopathology in children, including a current and lifetime diagnosis of PTSD (Kaufman et al., 1997).

In a recent Australian study, De Young, Kenardy, and Cobham (2011) used the Diagnostic Infant Preschool Assessment (DIPA; Scheeringa & Haslett, 2010) to examine how trauma symptoms manifested in young children exposed to a single incident medical trauma (i.e., burn incident). The diagnostic validity of five algorithms for PTSD, including those proposed for the DSM-V, was also tested. The results showed that the DSM-V PTSD preschool algorithm was the most developmentally sensitive, resulting in prevalence rates of 25 % at one month and 10 % at six months. Of particular note for school/kindergarten psychologists were the most common trauma symptoms in preschoolers: nightmares; sleep problems; irritability; temper tantrums; active avoidance of any trauma reminders; and psychological distress associated with these reminders (De Young et al., 2011). This finding highlights some of the key symptoms to look out for when working with this younger age group.

A more recent study (Gigengack, van Meijel, Alisic, & Lindauer, 2015) supported the results by De Young et al. (2011) using a sample of preschoolers exposed to accidental trauma (e.g., road traffic accidents). The findings showed

that the DSM-V subtype for children (6 years and under) and the other preschool-specific algorithm better captured the symptom presentation for this age group than the one based on the DSM-IV criteria. Taken together, these findings remind psychologists working in early childhood and school settings to use developmentally sensitive measures to assess trauma symptoms, and to also be aware that there might be some young children who do not meet diagnostic thresholds but who are still in need of treatment (De Young et al., 2011; Gigengack et al., 2015).

Child and parent self-report PTSD measures include the UCLA-PTSD Reaction Index (Steinberg, Brymer, Decker, & Pynoos, 2004) which was based on the DSM-IV criteria (Steinberg et al., 2013). This measure has been used widely in the USA and around the world, including Australia (Bryant et al., 2007) for clinical evaluation, research, and post-disaster screening purposes (Steinberg et al., 2004). The Index has been updated to incorporate the DSM-V criteria for PTSD although the psychometric data have yet to be published (Pynoos, personal communication, September 30, 2014). Other potential measures for assessing trauma symptoms and exposure to traumatic events include the Child PTSD Symptom Scale (CPSS; Foa, Johnson, Feeny, & Treadwell, 2001) the Trauma Symptom Checklist for Children (TSCC: Briere, 1996) and the Child Trauma Screening Questionnaire (CTSQ; Kenardy, Spence, & Macleod, 2006). In addition, Nixon et al. (2010) developed an eight-item Australian version of the Screening Tool for Predictors of PTSD (STEPP-AUS) to predict posttraumatic stress in a mixed-trauma sample of children aged 7–17 years. Results showed that this instrument correctly predicted 89% of children who went on to develop PTSD at a 6-month follow-up. For more detailed information regarding the measures available and their psychometric properties, please refer to the National Child Traumatic Stress Network website (www.nctsn.org) and ACPMH (2013, www.acpmh.unimelb.edu.au). For published reviews, refer to Hawkins and Radcliff (2006) and March, De Young, Dow, and Kenardy (2012).

When assessing a traumatized child, attention should also focus on understanding the family factors that might block or enhance recovery. These factors include the caregiver's emotional response to the trauma, and whether or not they have a trauma history. The impact of the trauma on family functioning is also relevant as is the caregiver's capacity to discuss the trauma with the child, and to reinforce appropriate coping strategies. Cultural beliefs and attitudes can also either enhance resilience in youth (e.g., Phillips, 2004; Tummala-Narra, 2007) or increase their risk for developing PTSD symptoms (e.g., Shen, 2009). Lastly, nonverbal interview techniques such as drawings and play can also be used when assessing traumatized children although more research is needed to ascertain their effectiveness (Landy & Bradley, 2013; Salmon & Bryant, 2002).

Evidence-Based Treatments for Childhood Trauma

In the following section, the main evidence-based treatments that are used to help children recover from a traumatic event are described, including those that can be implemented by a school psychologist. These are presented at the primary, secondary, and tertiary levels of intervention.

Primary Prevention: Psychological First Aid

Immediately following a traumatic event, the most effective intervention is Psychological First Aid. From a prevention science perspective, this intervention is used when there are no symptoms of disorder evident, and the goal is to facilitate recovery and prevent illness for all affected. This is achieved by reducing distress, providing physical safety, emotional and practical support (e.g., water, blanket) and by reorienting those children who are overwhelmed and confused. Children are also connected with parents, family, or familiar community members (Brymer et al., 2006; Kataoka et al., 2012). This is significant in light of Australian research showing that low social connectedness is a risk factor for persistent PTSD symptoms in primary school-aged children

(McDermott et al., 2014). Also needed is collaboration between services such as child protection or temporary housing (Brymer et al., 2006; Kataoka et al., 2012).

Secondary Prevention: Child and Family Traumatic Stress Intervention (CFTSI)

This intervention is administered within 30 days of a traumatic event, which is the time frame during which natural recovery typically unfolds (APA, 2013). As a secondary prevention, CFTSI is recommended for children who are at risk of developing PTSD. Participants are identified if they have been exposed to a potentially traumatic incident, and have endorsed at least one distressing symptom of PTSD within 30 days of the event (Berkowitz et al., 2011).

The intervention comprises four sessions during which a trained practitioner, such as a school psychologist, guides children and their parents/carers to communicate effectively about the common traumatic stress reactions, provides skills to help children master trauma reactions (i.e., relaxation techniques, diaphragmatic breathing, and coping strategies) and assesses their need for services (e.g., new school placement, counselling). The practitioner also connects caregivers to resources to manage stressors such as housing and legal matters. A key aim of meeting with the child and parent/carer together for multiple sessions is to empower the parent/carer to monitor his/her child's recovery over time (Berkowitz et al., 2011). The school psychologist has the requisite skills to be trained to implement such an intervention and to then maintain contact with the child and/or family as needed (Little & Akin-Little, 2012).

Tertiary Prevention: Treatment for Children with PTSD

The main purpose of PTSD treatment at the tertiary level is to target the symptoms that maintain distress following the traumatic event, and which prevent a natural recovery from taking place. Therefore, the treatment is focused on reducing avoidance and gaining mastery over trauma reminders. In addition, trauma treatment helps to create a meaningful and cohesive narrative about the event that helps to provide a balanced and safe worldview for the child (Cohen et al., 2010). The gold standard for such treatment is Trauma-Focused Cognitive Behavioral Therapy (TF-CBT; Cohen, Mannarino, & Deblinger, 2006, 2012).

Trauma-Focused Cognitive Behavioral Therapy (TF-CBT)

Modelled on adult treatments for trauma, TF-CBT is the most widely implemented and studied intervention for children/adolescents (Cohen et al., 2006; Fitzgerald & Cohen, 2012; Little et al., 2009). TF-CBT is designed to reduce PTSD symptoms in addition to depression, anxiety, and other trauma-related issues (e.g., shame, self-blame). Randomized controlled trials examining the efficacy of TF-CBT involving more than 500 children aged between 3 and 17 years have shown clinically significant reductions in symptoms compared with usual community treatment (Cohen & Mannarino, 1996a, 1998), child-centered therapy (Cohen, Deblinger, Mannarino, & Steer, 2004) and waitlist controls (King et al., 2000). These gains are maintained at One-year follow-up (e.g., Deblinger, Mannarino, Cohen, & Steer, 2006; Deblinger, Steer, & Lippmann, 1999). TF-CBT has also been adapted for culturally diverse populations including Hispanic and Native American youth in the USA (Bigfoot & Schmidt, 2010; De Arellano et al., 2005) and has been used by therapists in Australia (i.e., Cobham et al., 2012; Feather & Ronan, 2009). Importantly, TF-CBT has been adapted for delivery in school settings. Implementation is similar to that within a clinical setting, with the main difference being that skill-building components can be delivered in a group format (Fitzgerald & Cohen, 2012; Little et al., 2009; Rivera, 2012).

The first core component of TF-CBT is psychoeducation. Children and caregivers are provided with developmentally appropriate information about PTSD symptoms to help normalize the impact of the traumatic event. Children are then provided with specific coping skills, including relaxation training that incorporates deep breathing and progressive muscle relaxation. They are also taught how to identify and label their feelings to help with emotional regulation. More complex emotional skills are then taught such as rating the intensity of emotions and observing the connection between thoughts, feelings, and behaviors. Cognitive coping and restructuring skills help the children identify unhelpful/unrealistic thoughts and how to change them into more realistic/helpful ones to better manage symptoms (Cohen et al., 2006; Fitzgerald & Cohen, 2012). For example, after a traumatic event, a child might think "bad things always happen to me." Using cognitive restructuring skills, the child will learn to have more realistic thoughts, such as "It is not going to be easy but I can find a way to handle this" (Cohen et al., 2006).

Once a child has mastered these more general CBT skills, the next phase of treatment focuses on helping the child to build a developmentally sensitive trauma narrative. The aim being to allow the child to restore a healthy worldview by describing the circumstances of the trauma, and the associated thoughts, feelings, and bodily sensations while reducing avoidance of the trauma memories. Depending on the child's preference, the narrative can be a story, a trauma-specific creative piece (e.g., poetry, drawings) and/or discussion (Deblinger et al., 2012; Golding, 2014). Stories are particularly powerful because they can help to build connections with others while weaving the emotional experience with the reflective content (Golding, 2014). In addition, environmental cues or real-life trauma reminders are systematically approached through in vivo exposure exercises in order to gain mastery and to counter avoidance. Conjoint child–parent/carer sessions are arranged to help the family to process the trauma, and for the child and caregiver to learn skills to manage emotional reactions. The last phase of treatment involves the child and caregiver preparing for the future by enhancing safety and having a plan to help prevent the relapse of symptoms (Cohen et al., 2006).

School-Based Interventions for Posttraumatic Stress

Despite the existence of effective treatments for children who experience a traumatic event, there are barriers that prevent children from receiving such treatments in a clinical setting (Owens et al., 2002; Rivera, 2012). For example, a general lack of information provided to caregivers about mental health needs for children can reduce recognition of the need for treatment, and how to seek proper care. Stigma related to mental health difficulties can be another major barrier to seeking treatment, as can cultural factors and perceptions about mental health. Logistical issues, including cost, transportation, and childcare, can also impact on accessing treatment in a clinical setting (Owens et al., 2002).

Delivering treatment in a school can bypass many of the barriers associated with accessing clinic-based services (Cooper, 2008; Masia-Warner, Nangle, & Hansen, 2006). Schools are where children are often the most available and accessible (Steele, 2015). It is also the setting where symptoms might be first noticed by teachers, and where they might cause the most functional impairment in terms of academic performance and social relationships (Farmer, Burns, Phillips, Angold, & Costello, 2003). As such, schools can be the primary context for identifying children in need of trauma-focused treatment and providing group-based trauma interventions, while also serving as an entry point for more specialized mental health services. Schools can also facilitate the dissemination of information about trauma and its impact on a child's functioning (Cole et al., 2005; Kataoka et al., 2012; Little & Akin-Little, 2012). The school psychologist is well suited to provide these services and monitor their effectiveness (Little & Akin-Little, 2012).

Cognitive Behavioral Intervention for Trauma in Schools (CBITS)

Modelled after TF-CBT, CBITS is an empirically validated school-based group treatment for children who have experienced any type of traumatic stress or life event (Jaycox et al., 2006; Stein et al., 2003). CBITS is considered the best studied CBT group treatment for childhood PTSD (Cohen et al., 2010). The development of this treatment was first initiated by an American school system that wanted to target middle school aged ethnic minority immigrant children from lower socioeconomic backgrounds living in areas that experienced high rates of community violence. A partnership between the schools and a group of clinical researchers not only supported the development of this program but also its adaptation for a range of ages and cultural groups, including replication in Australia (Jaycox et al., 2012; Nadeem, Jaycox, Kataoka, Langley, & Stein, 2011; NCTSN, Cognitive Behavioral Intervention for Trauma in Schools, 2007).

CBITS is suitable for children who have been exposed to a range of traumatic incidents, including accidents/injuries, physical abuse, domestic violence, and natural/man made-disasters. Students who show mild to moderate PTSD symptoms and associated anxiety and mood symptoms are eligible to participate in CBITS with the goal of reducing symptoms, building resilience and peer support (Jaycox et al., 2006, 2012; see also http://www.cbitsprogram.org).

CBITS involves ten group-based sessions with approximately six to eight students facilitated by a school psychologist (or other school-based mental health professional). The students also receive between one and three individual sessions. There are between two and four optional parent/carer sessions, and one teacher education session (Jaycox et al., 2006, 2012). Similar to TF-CBT, initial group sessions are focused on providing children with education about common trauma reactions, which includes normalizing symptoms and highlighting common experiences among group members. In subsequent group sessions, children are provided with tools to manage symptoms, including relaxation training, affect regulation, and cognitive restructuring. Another important group component is imaginal exposure to the trauma narrative. Students are encouraged to share their emotions and thoughts associated with the traumatic event rather than the specific details of the event. This sharing experience can be powerful for children as they feel supported by one another. A further component of CBITS focuses on building social problem solving skills. The emphasis on building children's coping strategies following a traumatic incident is consistent with research showing that these strategies play an important role in the recovery process (Jaycox et al., 2012; Marsac, Donlon, Hildenbrand, Winston, & Kassam-Adams, 2014).

As is the case for TF-CBT, the individual sessions are scheduled to help each child to create a trauma narrative. The key message for children is that the avoidance of anxiety provoking triggers perpetuates anxiety in the short and longer term. It is better, therefore, to face fears, which helps to reduce the anxiety. These sessions are usually held before the students are expected to talk about their emotions and thoughts relevant to the traumatic incident in the group sessions (Jaycox et al., 2006).

Parents/carers also have the opportunity to learn about the effects of trauma, and how to develop effective coping skills for themselves and their children. The one session for teachers is designed to provide them with psychoeducation focused specifically on how trauma-related symptoms might manifest in the classroom (Jaycox et al., 2012; Marsac et al., 2014).

Evidence for CBITS consists of two known randomized control trials (Kataoka et al., 2003; Stein et al., 2003) and one field trial (Jaycox et al., 2010). In their RCT with sixth and seventh graders, Stein et al. (2003) found that 86 % of students in the CBITS group reported a reduction in PTSD symptoms compared with students in the waitlist control group. Sixty-seven percent of these students also reported fewer depressive symptoms. Parents of the children in the treatment group noted a decrease in behavioral problems among their children. These gains were maintained at a 6-month follow-up. In another study, Kataoka et al. (2003) evaluated CBITS

with 113 Spanish-speaking recent immigrant students and also found a significant reduction in PTSD and depressive symptoms compared with waitlist controls. Lastly, Jaycox et al. (2010) found that CBITS was more accessible and engaging for children with significantly more starting and completing this treatment compared with those receiving TF-CBT in a clinical setting. This finding highlighted how schools are important in the delivery and accessibility of evidence-based treatments for children affected by trauma (Cole et al., 2005; Fitzgerald & Cohen, 2012; Kataoka et al., 2012). School psychologists can complete the training for this program online/in person via the website (http://www.cbitsprogram.org/). Access to a range of resources to help manage difficult situations such as disclosures, as well as tips on how to implement the program, is also available (see website).

An adapted version of CBITS called Support for Students exposed to Trauma (SSET) can also be implemented by school psychologists/counsellors as well as teachers in a classroom setting (Jaycox et al., 2009). The major difference between CBITS and SSET is that the latter eliminates the individual breakout sessions, parent/carer sessions, and the imaginal exposure to the traumatic event in order to conduct it in a more curriculum-like format. The program comprises a set of lessons conducted within a class period (45 min) that starts with a general review of homework/practice from the previous session. A lesson plan is then delivered, which includes didactics and engagement in activities to promote mastery of skills with homework/practice set prior to the next lesson. Jaycox recruited teachers and school counsellors who did not have any specific clinical training. They found that symptoms of PTSD and depression decreased for children who participated in the SSET program compared with the waitlist group. They also found that SSET was suitable for school staff to deliver.

Trauma and Grief Component Therapy for Adolescents (TGCT; Layne et al., 2001; Saltzman, Pynoos, Layne, Steinberg, & Aisenberg, 2001) is another manualized cognitive and behavioral treatment that has been delivered in a classroom setting. This therapy is for adolescents who have experienced traumatic events, including community/school violence, war, interpersonal or gang violence, physical assaults, or terrorist events. Similar to the other models discussed, TGCT includes psychoeducation, core skill training (e.g., emotional regulation skills, adaptive coping skills), understanding grief and loss, addressing maladaptive cognitions, adaptive developmental progression, and relapse prevention. It is an intervention where specific modules are chosen to be delivered based on each individual's needs, and strengths. Session length is usually about 50 min, and the number of sessions varies between 10 and 24 (Layne et al., 2001; www.NCTSN.org).

From the above discussion, it is clear that there are numerous benefits to the delivery of evidence-based treatments for trauma in schools (Fitzgerald & Cohen, 2012; Jaycox et al., 2012; Kataoka et al., 2012). It should be noted that despite adaptations to different trauma treatments for delivery in schools, CBITS continues to be the most researched and effective school-based treatment. In order to effectively implement interventions such as TF-CBT and CBITS, participation in online/in person training (i.e., http://www.tfcbt.musc.edu and http://www.cbitsprogram.org) and supervision/consultation with trained professionals is optimal. In addition, it is important to be cognizant of the challenges associated with implementing school-based treatments (Fitzgerald & Cohen, 2012). For example, Langley, Nadeem, Kataoka, Stein, and Jaycox (2010) interviewed mental health clinicians, including school psychologists, who were all trained to deliver CBITS in schools, and found that the majority reported barriers to its implementation, including obtaining parental/guardian consent, and competing demands. The successful dissemination of trauma evidence-based practices in schools also requires support from the school leadership team, school council, and staff (Little et al., 2009: Nadeem et al., 2011; Walkley & Cox, 2013).

Overview of Approaches to Managing Trauma in the School Setting

As illustrated above, the implementation of evidence-based treatments in school settings provides an effective means to target PTSD symptoms in the aftermath of a traumatic incident. In addition to the delivery of such treatments, a number of other programs as well as more general policy and practice responses have been developed to support the increasing number of school children in Australia affected by trauma either from a single incident (e.g., bushfires) or as a result of disrupted attachment associated with chronic abuse and neglect (Goldfinch, 2009; Trethowan & Nursey, 2015). Refugee children are particularly vulnerable to complex trauma with a large majority experiencing PTSD symptoms (see for example Lustig et al., 2004).

To begin with, some of the general policies and practices for managing critical incidents affecting Australian school children will be outlined. Focus will be on situational crises, defined as extraordinary and unexpected events that can have a marked impact on the whole school community and its resources (e.g., death, suicide, assault, bushfires, school violence) (Nickerson & Brock, 2011; Trethowan, 2009a). Such crises might result in children presenting with an ASD or PTSD (Thompson, 2004). A more specific discussion will follow regarding what schools are doing to support children who present with a history of complex interpersonal trauma.

Crisis Management in Schools

Although infrequent, critical incidents are an unfortunate aspect of a school community. It was not that long ago when schools dealt with such incidents as they happened and often with little understanding of their potential psychological impact (Pitcher & Poland, 1992). For example, in the 1960s there was a horrific incident in a New South Wales school where a student was killed with a shot gun in front of her peers just before sitting their final exam. The "wisdom of the day" had the students ushered into the hall to commence their exam with little, if any, consideration of the potential impact of what they had just experienced. When such an incident is viewed through the lens of our current knowledge of trauma, much needed to change.

School crisis management involves a multilayered approach, incorporating education, preparation, action, and evaluation. One of the most important aspects of school crisis planning is a supportive school culture and effective leadership structure that is characterized by clearly demarcated roles and responsibilities. This leadership should happen within the immediate school community as well as within the broader educational context (MacNeil & Topping, 2007; Said, 2001; Trethowan, 2009a; Whitla, 2003).

Within the school setting, a critical incident or school emergency management plan should include a clear set of guidelines that address physical and psychological safety needs. This plan should also include prevention, early intervention, and response strategies as well as structures, procedures, and supports that can be put in place to prepare a school for a crisis (MacNeil & Topping, 2007; Said, 2001; Thompson, 2004; Trethowan 2009a, 2009b; see also http://www.education.vic.gov.au/school/principals/health/Pages/emergencieschildren.aspx). For example, unless there is a clear structure and protocol available, staff and students might receive information that they do not realize needs to be shared (e.g., knowledge that a student is behaving in an unusual manner). Protocols can also be developed in response to risk assessment, including informing students that keeping secrets is not appropriate when someone is threatening to harm him/herself or another person. They can be informed that it is school procedure for parents/carers to be involved in maintaining their safety and confidentiality (Said, 2001). The guidelines can also cover a range of potential dangers from zones where running is not safe to protocols for the appropriate use of social media. Given their knowledge of education and mental health, the school psychologist (where possible) should be given the opportunity to contribute to the development of these guidelines.

As part of a school's critical incident plan, an internal recovery team or school crisis team is usually established at the beginning of each school year. Typically, this team includes the Principal (and Assistant Principal) one or two teaching staff who are first aid trained, a member of the educational support staff, the school psychologist (or similar), and the school nurse (if available). In the event of a crisis, it is the Principal's responsibility to make decisions and direct the actions that need to be taken by members of the crisis team (Trethowan, 2009a). Each school's crisis team is linked to the broader management structure that lies within the Department of Education and Early Childhood Development (DEECD) and more specifically to the Regional School Recovery Team. Schools can call on this team to provide hands on assistance and support for children/adolescents affected by traumatic incidents, including Psychological First Aid and media liaison. Members, including psychologists, need to be familiar with crisis and trauma theory, and how this theory translates to practice. Typically, the coordinator of a Regional School Recovery Team is responsible for communicating with the Principal and the Regional Emergency Management Coordinator while facilitating the team's response (Trethowan, 2009b).

While structured psychological debriefing has often been an integral part of crisis management plans because of its assumed role in relieving immediate stress following a traumatic incident (ACPMH, 2013) there is not the evidence base to support its routine use with children/adolescents (Pfefferbaum, Jacobs, Nitiéma, & Everly, 2015; Trethowan, 2009a). The reason for this is that it is not always helpful to put young people in a position where they have to talk about what has happened straight after an event (ACPMH, 2013). As mentioned earlier, the aim of Psychological First Aid is to reduce the early signs of distress following a traumatic incident. It is thought to be a more supportive and effective approach to early intervention (Trethowan & Nursey, 2015).

Together with the evaluation and review process, clear and transparent protocols for documenting a critical incident are necessary parts of a school management plan (Said, 2001). A situational crisis is a learning opportunity for the whole school community, not just individual members. The insights and oversights need to be reviewed with amendments to the plan made accordingly (MacNeil & Topping, 2007; Said, 2001). The knowledge gained by a community rallying together, working through a difficult time and positively moving on, is invaluable (Said, 2001).

While it is important for schools to have processes in place for managing situational crises, there are also guidelines specific to particular traumatic incidents. Two examples will be illustrated here: first, management of allegations of sexual assault, and second, response efforts for the large number of school children affected by bushfires across Australia and Tasmania. The latter highlights the effectiveness of a multi-layered approach that reaches all parts of the community, and in particular schools, which are key role models in the community (Cole et al., 2005).

In 2004, the Victorian Department of Education and Training established the Student Critical Incident Advisory Unit, which is located within the Student Wellbeing Branch of the DEECD. This Unit assists with the provision of appropriate supports to help all students affected by sexually related incidents in Victorian State school. Key here is the availability of statewide procedures for schools to ensure appropriate management of allegation of sexual assault. The Unit not only provides an educative role but also ensures that schools meet their legal, ethical, and professional responsibilities. The Unit works in partnership with the Victoria Police and the Department of Human Services (DHS), and with other relevant organizations such as the Centres Against Sexual Assault, Childwise (CASA), the Australian Childhood Foundation (ACF), the Children's Protection Society, the Royal Children's Hospital Gatehouse Unit, and the Child Safety Commissioner (see http://www.education.vic.gov.au/school/principals/health/Pages/criticalunit.aspxref).

While there is a need for an immediate response to allegations of sexually related incidents (Matthews, 2014) children also require longer term therapeutic support that promotes an

engaged, consistent, and developmentally sensitive response (Dwyer et al., 2012). Schools can provide a suitable environment for these children to develop strong relationships with caring adults, which foster a sense of trust and safety (Cole et al., 2005). Teachers can become secondary attachment figures providing a secure base for learning and socializing while supporting the child to regulate his/her emotions and behavior. However, for this to work, teachers also need to ensure that their own well-being and self-care remain a priority with adequate and ongoing resources allocated to this (Cole et al., 2005; Dwyer et al., 2012).

Consistent with crisis management planning in schools, the responses to children/adolescents affected by bushfires have been multi-layered. In Australia, bushfires impact at least one State every summer. They often destroy homes and result in death and/or serious injury. The ripple effect can be devastating for children, families, and the community. This has resulted in targeted initiatives to address this traumatic experience. For example, after the 2009 Victorian bushfires, DEECD engaged experts in the field of child/adolescent trauma and the Department of Health and Human Services (DHHS) to discuss ways that schools could provide psychological support to those affected. From these discussions, a child screening program was set up in all bushfire-affected areas to identify children at risk of developing more persistent trauma reactions (Trethowan & Nursey, 2015). The Australian Psychological Society (APS) also prepared a set of written guidelines for parents/caregivers, which had an educative and response focus. These guidelines highlight the possible impact of trauma on children and provide some strategies that can be used to support the children in their recovery. Options are also provided for seeking further assistance, including that from a psychologist (APS, 2013). A school psychologist could play an important role here in terms of monitoring children in the school setting, facilitating collaboration between parents and the school, providing follow-up support, and making appropriate referrals where necessary (DEECD, 2012). There might also be scope for the school psychologist to run group programs similar to the Seasons for Growth program (https://www.goodgrief.org.au/seasons-for-growth) that help the children to further process their experience and develop a narrative for what has happened.

A further initiative was the *beyondblue* Child and Youth Bushfire Response. This is a free multi-layered program for children, adolescents, parents/caregivers, educators, and health professionals affected by bushfires. School personnel are offered knowledge and skill-based training to help identify signs of emotional/physical distress following a bushfire. Strategies are also recommended to help manage trauma symptoms in the school setting. Parents/caregivers are provided with a two-hour seminar, which addresses the emotional and behavioral responses that children might show in response to a bushfire. They are also supported to manage their child's distress as well as provided with some tips for answering children's questions, knowing when to seek professional help, and how to locate such help. Children/adolescents affected by bushfires are also screened in their school to help identify who would benefit from more intensive psychological support. All School Principals in the affected areas are consulted about the *beyondblue* response, and therefore are the first point of contact to ascertain what is happening in each school. In response to the recent Tasmanian bushfires, the Tasmanian Bushfire Recovery Unit was set up and one of the many functions of this Unit was to include updates regarding the *beyondblue* response (www.beyondblue.org.au/…/child-and-adolescent-bushfire-disaster-response).

Trauma-Sensitive Approaches and Resources to School-Based Learning and Classroom Management

A number of evidence-based models, programs, and resources have been developed that share a multi-level system approach, focused on creating trauma-sensitive classrooms and schools. Common features include a whole school approach, a cohesive and supported teaching team, relationship-based practice, provision of a

safe and trusting environment, educational strategies that focus on social and emotional development, targeted interventions, and staff well-being (Dwyer et al., 2012, p. 20). Each of these components will be discussed briefly.

A successful whole school approach relies firstly on identifying barriers in knowledge and skills that impede intervention. Such barriers include unhelpful beliefs about the provision of intervention (per se e.g., that intervention only happens in the home); out of date practices that are not informed by the relevant literature on the neurobiology of attachment and the impact of trauma (e.g., Perry, 2009; Schore, 2013; Siegel, 2011; Twardosz & Lutzker, 2010); a lack of necessary resources; and blame levelled at the parents/caregivers (Dwyer et al., 2012). As mentioned previously, a leadership structure that is willing to address these barriers over time and develop trauma-sensitive responses across the whole school system with the support of the school psychologist (or similar) is critical here (Cole et al., 2005; Dwyer et al., 2012; Walkley & Cox, 2013).

Just as is the case for school crisis management, a cohesive and supported teaching team means that all staff are consistent in their approach to working with traumatized students. This includes being informed about the impact of disrupted attachment and trauma on child development, and how to apply the expanding, and at times, complex theory to practice (Dwyer et al., 2012; Oehlberg, 2008). With appropriate training and experience, the school psychologist can provide targeted staff professional development (PD) that is focused on explaining the different experiences that can affect children with a trauma history, including the influence of cultural factors. They can also promote the use of evidence-based strategies to help manage these children as well as self-care strategies to help staff manage their own responses (Cole et al., 2005; Dwyer et al., 2012; Little et al., 2009; Nadeem et al., 2011).

From a trauma-sensitive perspective, it is also important to remember that a child's development is reliant on the quality of his/her relationships across the life span (Perry, 2009). Children also learn a lot about relationships through observing those around them. Therefore, it is beneficial for school staff to create opportunities for regular and clear communication with parents/caregivers so as to promote an experience of inclusion while also treating each child and family as unique. This serves to encourage meaningful and sustained contributions to the broader school community. It also helps if staff changes and turnover are minimized as this supports continuity of care (Dwyer et al., 2012). To build partnerships, teaching staff should also have an understanding of the child's history. This can make it easier to move beyond the behavior *per se* and understand its meaning in the context of this history (Robinson, 2008). The overall aim is for teaching staff to provide relationship-based care that promotes positive and nurturing experiences (Dwyer et al., 2012; Perry, 2009; Siegel, 2012; Walkley & Cox, 2013).

Some of the key educational models and resources used in Australia that share the features mentioned above are outlined below. While there is no known systematic evaluation of these approaches, they represent common frameworks used in school settings.

The Calmer Classrooms resource booklet (Downey, 2007, http://www.ccyp.vic.gov.au/childsafetycommissioner/…/calmer_classrooms.pdf) was commissioned by the Victorian Child Safety Commissioner. The booklet draws on the empirical literature to provide accessible strategies for creating and maintaining supportive and safe learning environments for students affected by trauma, which readily translate to the whole school community. At the beginning of the booklet there is an educative section that includes a discussion on attachment and trauma theory, and how a history of disrupted attachment and trauma can impact on development, including the implications for the developing brain. There is also a section on the impact of chronic abuse on school-related performance, including academic and social functioning. The third section provides specific guidelines on building and sustaining relationship-based practices that provide safe and containing environments that foster meaningful connections. Important information specific to

teaching indigenous students is also provided (Downey, 2007).

The Maryborough Education Centre (MEC) located in the small town of Maryborough in North West Victoria provides a leading example of a school (Prep to 12) that has incorporated a trauma-informed approach drawing on the Calmer Classrooms booklet and the work of Dr Bruce Perry. In doing this, the school hoped to maximize enrolments, improve attendance, and to create links with families and the local community. A school psychologist was employed as a "behavioral coach" by DEECD to help with this transformational phase of the school. Emphasis was given not only to creating trauma-sensitive classrooms but also to using restorative practice and the schoolwide positive behavior support program to help consolidate consistency and predictability in the approaches used. While there was no published outcome data available, the school attendance from Prep to Grade 6 increased substantially from 2012 to 2013. For example, the average days absent for Grade 6 students in 2012 was 18.22 compared to 4.9 in 2013 (Healy & Gibbs, 2013).

The Trauma and Learning Policy Initiative (TLPI; http://traumasensitiveschools.org) was developed specifically for primary and secondary students living in family violence situations (Cole et al., 2005). While this initiative started from a collaboration between the Massachusetts Advocates for Children and the Harvard Law School, it has relevance to Australian schools. The TLPI has published the *Helping Traumatized Children Learn* document. The first volume, published in 2005, summarizes the research on the neurobiology of attachment, including the impact of exposure to violence on children's functioning across multiple domains. A Flexible Framework is presented, which has six main elements: Schoolwide Infrastructure and Culture; Staff Training; Linking with Mental Health Professionals; Academic Instruction for Traumatized Children; Non-academic Strategies; and School Policies, Procedures, and Protocols. The second volume is called *Helping Traumatized Children Learn: Creating and Advocating for Trauma-Sensitive Schools, safe, supportive learning environments that benefit all children.* This volume guides schools towards creating trauma-sensitive communities and a policy agenda that allows this to happen, including advocating for changes to laws, policies, and funding bodies.

The SMART program (Strategies for Managing Abuse Related Trauma Program; http://www.childhood.org.au/for-professionals) is a statewide initiative to strengthen the capacity of educational settings to respond effectively and appropriately to the needs of children who have a history of disrupted attachment and trauma. The initiative is funded by the South Australian Government Department of Education and Children's Services, and part of the Keeping Them Safe Child Protection reform agenda. The program content was developed by ACF in partnership with the Child Abuse Prevention Research Australia and the Indigenous Health Unit at Monash University, Melbourne, Australia. Included in the program is a range of integrated professional development seminars, which focus on increasing knowledge and developing skills in the area of childhood trauma as well as an interactive online learning package. All registered participants are able to download resources, complete the online training program, take part in regular discussion forums, and register for SMART workshops.

Solving the Jigsaw (http://www.solvingthejigsaw.org.au) is a school-based early intervention and violence prevention program that works to reduce the incidence and impact of violence and bullying in children's lives. The program was developed by the Centre for Non-violence (CNV) which is a domestic violence support service located in regional Victoria, Australia. Since its launch in 2007, more than 27,000 children have taken part in classroom programs with many school staff and other professionals training to be facilitators. In either a whole class or small group format, the program provides a safe space for children to think about issues relevant to pro- and antisocial conduct (Milne, 2006). Knowledge and skill development in conflict resolution, group dynamics and peer relationships, support systems, and anger management are included as

part of the program, which combines weekly catch-ups with structured activities. A trained facilitator, with the aid of the classroom teacher, conducts one hour weekly sessions over a 20- or 40-week period.

Future Directions for Trauma-Related Work in Australian Schools

Despite significant advances in the recognition and treatment of trauma-related symptoms and disorders in Australian children, there remain challenges to resource allocation and program implementation in schools. Providing empirically validated treatments requires a level of training that exceeds treatment as usual (Fitzgerald & Cohen, 2012; Walkley & Cox, 2013). This means that additional time is needed for proper training that is guided by the relevant research, as well as an adequate level of supervision/consultation to ensure treatment fidelity and quality of care in an educational context. The culture of the school, leadership team, and supervisory structure should promote honest and transparent discussions that support psychologists and other allied health professionals in their work with traumatized children and their families. This includes allowing space and time for these professionals to process their own reactions to their clients' stories (Brassard et al., 2009; Downey, 2007; Dwyer et al., 2012; Knight, 2015; Walkley & Cox, 2013). Suitably qualified supervisors and time for training and supervision can be scarce resources in such a context (Fitzgerald & Cohen, 2012).

School psychologists are also faced with their usual job demands, which can make it hard to find time to implement additional school-based interventions that are specific to managing traumatic incidents. For example, these clinicians are often dealing with daily crises and students who present with other serious mental health needs unrelated to trauma. A further challenge to implementing school-based interventions is balancing when to schedule therapy groups while trying to avoid class disruption. Keeping consistent weekly sessions can be difficult when competing with an equally important academic agenda and forever changing curriculum needs. Lastly, there is the potential reluctance from caregivers to allow their children to participate in school-based interventions that are related to mental health and trauma (Langley et al., 2010; McLoone & Rapee, 2012). Together, these challenges highlight the ongoing need for greater systemic change regarding how to best address the needs of traumatized children, and how to integrate targeted treatments within the school setting.

One way forward is to ensure that effective and sustainable partnerships are in place before the implementation of a school-based program, which includes the engagement of key stakeholders and policy makers. This should happen alongside the development of clinical and leadership support systems that build on existing resources and expertise (McLoone & Rapee, 2012; Nadeem et al., 2011). A critical part of this is to have school psychologists engage parents/caregivers from the outset through an initial psychoeducation campaign that helps to improve their understanding of the role of the school-based program, the areas being targeted, and expected outcomes across different domains of functioning (e.g., academic performance, peer relationships, emotional regulation). Some of the stigma and/or fears attached to attending such a program could also be addressed (McLoone & Rapee, 2012; Walkley & Cox, 2013).

Consistent with the current approaches to supporting the general emotional and social well-being of Australian primary and secondary school students (e.g., Kidsmatter, MindMatters) there are multiple modes of delivery and strategies to support those students affected specifically by trauma, whether it be a single incident or as a result of disruptive attachments. Given the multiple approaches, it can often be confusing for educational staff to know which program/treatment approach to use, and the rationale for doing so (Jaycox et al., 2006). This highlights the need for a more streamlined approach that makes clear the costs and benefits of each program, and the targeted outcomes.

Undoubtedly this decision-making task is more challenging with complex trauma because

we still do not know what the best treatment is, or indeed whether there is a "best treatment." However, what we do know is that prevention and early intervention remain the primary goal (Brassard et al., 2009; Jaycox et al., 2012). The earlier the intervention, the less likely that children will go on to have problematic schooling and persistent mental health concerns (Van der Kolk, 2014). We also know that treatment needs to be multifaceted and allow for the repeat opportunity to imitate and model healthy, consistent, and nurturing relationships with others. For teachers, this can be both challenging and frustrating because of the large number of repetitive nurturing experiences that these children require (Dwyer et al., 2012; Perry, 2009). It is not always possible to provide such experiences during a typical school day, particularly when there are other disruptions and students who require attention (Twardosz & Lutzker, 2010). This is where the school psychologist can play a role in supporting the teacher to manage his/her frustration and encourage the use of self-care strategies and "good enough" teaching (DEECD, 2012; Fitzgerald & Cohen, 2012).

From research we know that disruptive attachments in early infancy have significant neurological implications that need to be considered when developing trauma-sensitive interventions within the school setting (Downey, 2007; Dwyer et al., 2012; Twardosz & Lutzker, 2010; Van der Kolk, 2014). An important focus of these interventions is to get children in touch with their bodies and emotions such that they understand how their breathing and movement assists with self-regulation. Teaching children self-regulation skills in schools can help them to gain greater awareness of their internal world, which can promote recovery. Children should also be encouraged to harness the power of their imagination and to use other creative mediums to connect the mind with the body (Golding, 2014; Van der Kolk, 2014).

Future research can play a role in developing a greater understanding of the DTD construct, and its implications for the assessment and treatment of early relational trauma (Twardosz & Lutzker, 2010; Van der Kolk, 2014). There is also research showing that there are individual differences in the trajectory of PTSD symptoms in children following a traumatic event. This heterogeneity in trauma sequelae is important to take into account when assessing children, determining the best course of treatment and the setting in which to deliver such treatment (Hong et al., 2014).

It is often still the case that crisis management planning in schools is determined by individual school systems and in some cases individual schools. The nature of such planning can be influenced by the previous experience of those doing the planning and the specific training and expertise of those with whom they consult. A clear set of protocols and policies is required to ensure a consistent approach between systems and across the hierarchical structures that oversee such systems (MacNeil & Topping, 2007). This will help to ensure not only consistency in the response to a crisis but also in the supports provided to all members of the school community. School psychologists can play an important role here by ensuring that the psychological well-being of the whole school community is a priority through promoting trauma-informed practices (DEECD, 2012; Jaycox et al., 2012).

There also remains some inconsistency in the terms used to describe the management of critical incidents, including critical incident debriefing, critical incident stress debriefing, and school crisis management planning. While these terms refer to different aspects of a response to a crisis, it can be confusing for school personnel to know which particular practice has most relevant to their schools' needs. Consistency in terminology across organizations responsible for trauma response and recovery is therefore recommended. The movement in Australian schools has been towards the term "crisis management," which differentiates the response from that used by emergency services and their critical incident teams (see Whitla, 2003).

We have come a long way since the 1960s in our understanding and management of critical incidents and complex trauma in educational settings. The clinical and empirical literature on attachment and trauma has provided a clear lens

from which to develop informed policies, programs, and resources to support and treat children affected by traumatic events. While there remain ongoing challenges in development and implementation, the foundation has been laid to ensure that schools are equipped to provide children affected by trauma with the best possible outcomes in the short and longer term.

Test Yourself Quiz

1. What is the main difference between ASD and PTSD in terms of the diagnostic criteria?
2. What are the four main clusters of PTSD symptoms? Provide at least one example of each.
3. Marsha, aged 10 years, witnessed her house burn down due to an electrical fault. While no one was physically hurt in the fire, she lost all her possessions. What intervention would be used in the first instance with Marsha? When would you consider using another trauma-informed intervention, and what might this be?
4. What are some of the benefits and challenges of delivering trauma-informed treatments in schools?
5. You are a school psychologist working in a primary school setting. The school principal has asked you to deliver a professional development seminar to teachers and support staff on working with traumatised children in the school setting. What key principles and approaches would want to highlight in this seminar that are consistent with developing trauma sensitive school communities?

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Understanding and Responding to Adolescent Risk-Taking Behaviours and Addictions in the School Setting

Michelle A. Tollit, Sheryl Hemphill, and John W. Toumbourou

Risk-taking behaviours include self-harm, dangerous activity increasing the probability of death and injury; sexual experimentation; gambling and substance use, all of which increase the probability of adverse health and social consequences (e.g. Toumbourou & Catalano, 2005; Toumbourou, Olsson, Rowland, Renati, & Hallam, 2014). Engaging in risk-taking behaviour (also referred to as problem behaviour) poses direct and indirect threats to the health, wellbeing and safety of individuals and to the wider society (Toumbourou et al., 2014). As will be described later, participation in these behaviours also carries secondary psychological, physical and educational consequences in the short and long term. Research shows that Australian school psychologists frequently support students exhibiting risk-taking and problem behaviours in their every day roles (Thielking, 2006).

Adolescence is a time associated with risk taking as young people can have unrealistic appraisal of risks and consequences and are testing limits and boundaries of acceptable behaviours during these years (Sigelman & Rider, 2003). Some argue that experimenting with risk taking during adolescence assists in learning to develop a more realistic understanding of acceptable limits of behaviour and provides potential for independence and autonomy (Spear, 2000). While experimental risk taking is not uncommon in adolescence (Spear, 2000), for some young people, engaging in these behaviours can lead to longer term problems such as injury, legal problems and addiction (Australian Bureau of Statistics, 2008; Morrison, 1990; Spear, 2000).

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Risk taking can manifest in a number of different ways including externalising behaviour problems (e.g. violent behaviour, substance abuse, non-violent antisocial behaviour such as theft and vandalism) (Catalano et al., 2012; Donovan, Jessor, & Costa, 1988; Hawkins et al., 2009; Spear, 2000). Although there is diversity in the types of risk taking that exist, these problem behaviours are often interrelated (Catalano, Hawkins, Berglund, Pollard, & Arthur, 2002; Donovan et al., 1988). Different forms of risk-taking behaviours and addictions are proposed to be represented by a single underlying process of 'deviant development' and thus share the same aetiological influences (e.g. Donovan et al. (1988) propose that various forms of interrelated problem behaviours can be explained by a single underlying common problem behaviour syndrome). Others contend that problem behaviour consists of different types of behaviours, which are influenced by distinct factors. For example, problem behaviour may be seen to be represented by a two-factor structure made up of substance abuse and delinquency (otherwise known as antisocial behaviour), and although correlated, is depicted as distinct constructs (Hemphill, Herrenkohl, et al., 2007). Using multiple group structural equation modelling, this two-factor structure of problem behaviour has been verified with students in both Australia and the USA (Hemphill, Herrenkohl, et al., 2007). Therefore, this chapter will discuss risk-taking behaviours as they relate to substance abuse and antisocial behaviours separately. Understanding the distinguishing features of these separate constructs, including their aetiologies, is an important undertaking, as this information can be used to guide prevention and intervention efforts which address risk taking.

Although young people can perform risk-taking behaviours within a school setting, they can also occur outside of school such as in the home or within the community. As will be discussed throughout this chapter, risk-taking behaviours can have ramifications which extend into school life which may consequently contribute to school adjustment difficulties such as academic failure and low school commitment. An important component of the school psychologist's role is to work towards developing ways of building capacity within a school community to support and respond to students who engage in risk-taking behaviours.

This chapter aims to provide an overview of adolescent risk-taking and different approaches which schools and school psychologists can use to address these behaviours. To begin, we describe risk taking as it occurs within the context of adolescent development. Common externalising risk-taking behaviours (alcohol use, tobacco use, illicit drug use and antisocial behaviours) in adolescence will be discussed in turn; initially they will be defined, prevalence rates will be reported, followed by a discussion of the impacts of these behaviours on mental health, wellbeing and school life. In addition, risk taking which occurs online will be considered, given the central role of technology in the lives of adolescents. Following this, we focus on some of the predictors of these behaviours. A discussion of different approaches that have been successful in reducing risk taking in young people will be provided, along with an outline of approaches that do not work or have limited success. A common theme throughout the chapter is how school psychologists approach risk taking in young people. The chapter will conclude by summarising the role of school psychologists in addressing risk taking in adolescence.

Risk Taking in Adolescence

Adolescence, the period in which young people transition from childhood to adulthood, is a time in the life course often linked to risk taking and the emergence of some addictive behaviours (Chambers, Taylor, & Potenza, 2003). The World Health Organization classifies adolescents as individuals between the ages of 10 and 19 years (World Health Organization, n.d.: see http://www.who.int/topics/adolescent_health/en/), corresponding with the secondary school years. Experiences during adolescence have important implications for the health and well-being and the daily functioning of individuals in

their immediate and future adult lives, including impacts on school life and educational outcomes (Toumbourou et al., 2014).

Young people undergo a myriad of physical, psychological, moral and social changes in adolescence. In addition to the more overt biological changes occurring in puberty, adolescents also undergo a number of subtle changes, such as cognitive and brain development. Although brain development occurs most rapidly in the early years of life (Sigelman & Rider, 2003), brain maturation continues throughout adolescence (Steinberg, 2005). Structural and functional changes to the adolescent brain play a role in adolescent emotion, cognition and behavioural development (Steinberg, 2005). Reckless and impulsive behaviour during adolescence may in part be attributed to the way in which sections of the brain controlling impulsivity and decision-making (e.g. dorsolateral prefrontal cortex) do not fully develop until the mid-twenties (Giedd, 2004). Hence, adolescence is a time when young people may be neurologically predisposed to experiment with risk-taking behaviour. Furthermore, a minority (between 5 and 20%) of young people enter adolescence with disabilities and developmental problems arising in childhood (e.g. Toumbourou et al., 2014; Vassallo et al., 2002) which make adolescent adjustment more challenging; these students may require more intensive and targeted assistance to avoid risk-taking behaviours.

More generally, young people also often have a low appraisal of their individual risk, a concept which is related to the term the *personal fable*. This occurs when young people believe they are unique and inexplicably different from others and would therefore not suffer ill fate if confronted with danger and risk as others might (Lefton & Brannon, 2006). They also are relatively inexperienced in dealing with new (and more adult) experiences, which may place young people at heightened risk when confronted with such experiences (Romer, 2010).

The structural changes occurring to the brain, coupled with the way in which adolescents have limited personal experience understanding real-world consequences (Romer, 2010), mean that adolescence can be a period of vulnerability to risk, if not managed well. Young people require support and scaffolding to ensure that they navigate and mitigate risk situations safely. School psychologists play a role in helping students to develop skills to successfully appraise risk and foresee consequences to promote calculated and positive risk taking which is important for development, through the development of problem-solving and decision-making skills. Psychologists could work with students to understand their motivations for engaging in risk taking (e.g. stress reduction, peer acceptance) and with students' input explore safe alternatives to harmful risk taking to achieve positive outcomes.

Adolescence can also be regarded as an opportune time to shape the moral development of young people. With increased experience and cognitive development, young people are able to reason with more complexity regarding the consequences of actions for themselves and others. Many young people internalise codes and principles for behaviour, developing and internalising a moral philosophy (Catalano, Toumbourou, & Hawkins, 2013). Education is a key influence assisting adolescents in this task.

In addition to the physical, behavioural, moral and cognitive changes occurring in adolescence, adolescents also undergo a number of social changes. A key development in adolescence is the formation of an independent social identity. There is a shift in the environmental contexts in which young people spend their time and socialise from childhood to adolescence, with less time spent with family and more with friends (Spear, 2000). Parents who are able to manage this transition by maintaining communication with adolescents and establishing clear standards tend to reduce the likelihood of harmful risk-taking consequences through adolescence (Toumbourou et al., 2014).

Common Risk-Taking Behaviours in Adolescence

Tobacco and alcohol use. With increased sensation seeking, individual freedom and access to substances, adolescence is a time for decision-

making as to whether to engage in psychoactive substance use. Tobacco and alcohol use are two commonly used and legally marketed substances that cause widespread harm in Australia and across the world (Toumbourou et al., 2014). Australian national health guidelines recommend total abstinence from tobacco and that adolescents do not use alcohol until the legal age for purchasing alcohol of 18 years (Toumbourou et al., 2014).

The harms associated with tobacco use are well documented (Mathers, Toumbourou, Catalano, Williams, & Patton, 2006); however, many adult smokers take up the habit in adolescence (Chambers et al., 2003). Nicotine dependence can develop relatively quickly through adolescent experimentation making it difficult for young people to give up smoking. Alcohol use is harmful to young people in part because of progressive brain maturation occurring throughout adolescence and also because young people are neurologically more vulnerable to developing tolerance, whereby those that initiate alcohol use at earlier ages progress to tolerate higher doses over time. This tolerance results in some young people drinking alcohol at levels that increase immediate injury risks and neurological damage, with five or more drinks in a session referred to as *binge drinking*. Alcohol abuse and dependence are uncommon in those aged 13 years or younger (Clark, 2004). After this age period, alcohol dependence becomes more apparent, and by late adolescence rates of alcohol use disorders are similar to that of adults (Clark, 2004).

Prevalence. Rates of alcohol and tobacco use tend to increase with age during adolescence (e.g. White & Bariola, 2012). However, due to deliberate public health efforts, rates of use during the secondary school years have fallen dramatically in Australia over the past decade (Toumbourou et al., 2014). The national Australian school survey in 2011 (White & Bariola, 2012) found that 13% of 16- to 17-year-olds identified as current smokers, this being lower than the 17% in 2005. The same survey found 33% of 16- and 17-year-olds reported drinking alcohol in the week before the survey in 2011, significantly lower than the 47% found in 2005. In 2011, 16% of 16–17-year-old students reported binge drinking, down from 23% in 2005 (White & Bariola, 2012). These improvements can be related to the dissemination of information on the harms of early age alcohol and tobacco use (Toumbourou et al., 2014) and effective family and school prevention programmes (Loxley et al., 2004).

Structural inequality and socioeconomic (SES) differentials are increasing in Australia and internationally (Office of Economic Cooperation and Development, 2012) and adversely impact child and adolescent risk-taking behaviour and other outcomes and typically require national and state action to be effectively addressed (Toumbourou et al., 2007). Adolescents from rural and low SES areas have higher rates of alcohol and tobacco use (Coomber et al., 2011). There is also considerable country-level variation in patterns of tobacco and alcohol use. Students from Australia have reported higher rates of tobacco use within the past 30 days (e.g. Grade 9, males 17.5%; females 25.4%) compared to students from the USA (e.g. Grade 9, males 10.0%; females 12.4%) (Hemphill et al., 2011). In a survey of over 100,000 15–16-year-olds across 36 European countries, on average 28% had smoked cigarettes in the previous 30 days (Hibell et al., 2012). Similarly, higher rates of alcohol use have been noted in Australia compared to the USA, with the proportion of students from Australia who had consumed alcohol in the past 30 days almost double that of students from the USA (Hemphill et al., 2011). In comparison, on average 57% of 15–16 years across more than 30 European countries reported alcohol use within the previous 30 days (Hibell et al., 2012). Cross-national differences in rates may be attributed to differences in policy approaches and social and cultural norms (e.g. Evans-Whipp, Bond, Toumbourou, & Catalano, 2007).

Impact on mental health, wellbeing and educational outcomes. Mental health problems that emerge in adolescence include the more common conditions of anxiety and depression and less common conditions such as psychosis (Toumbourou et al., 2014). Substance use in adolescence is known to increase the risk of mental

health problems. Longitudinal studies show that tobacco use may alter neurodevelopmental pathways that increase the risk of depression (Mathers et al., 2006) and alcohol and drug use increases self-harm and suicidal behaviour (Hawton, Saunders, & O'Connor, 2012; Moran et al., 2012). Risk of experiencing harm, particularly due to injury, may also be heightened when under the influence of alcohol due to impaired judgement and decision-making. Relatedly, 124 per 100,000 males and 126 per 100,000 females between the ages 15 and 19 years were cared for in Australian hospitals for acute alcohol intoxication in 2005–2006 (Australian Bureau of Statistics, 2008).

Adolescent alcohol and drug use affects brain development, memory, attention and cognitive functioning (Bava & Tapert, 2010; Jacobsen et al., 2005). Adolescent alcohol use is related to academic performance and school difficulties (Balsa, Giuliano, & French, 2011), as well as educational attainment (Tucker, Orlando, & Ellickson, 2003). Longitudinal studies examining links between alcohol use and academic performance have generally found greater alcohol use and misuse is associated with lower academic performance, although others have not found these connections (Boden, Fergusson, & Horwood, 2006). Research indicates that alcohol use is also associated with school-related behaviour problems. A recent study of students in Australia and the USA found that alcohol use and heavy episodic alcohol use in Grade 7 predicted later school suspension as well as truancy, but not low academic performance and low commitment to school (Hemphill et al., 2014).

School psychologists share a responsibility of informing students and parents of the effects of alcohol and tobacco use, emphasising the impact of these substances on learning and behaviour. Preventing the use of alcohol and tobacco is important and may have a carry-over effect in improving the mental and physical health of young people as well as school outcomes.

Substance use and illicit drug use. Adolescence is a time when some young people experiment with illicit drug use (e.g. White & Bariola, 2012). It can be surmised that the motivations for doing so may include seeking to escape distress, curiosity and efforts to conform to social norms and peer group behaviour (Australian Bureau of Statistics, 2008; Clark, 2004; Hawkins, Catalano, & Miller, 1992; Morrison, 1990). Some young people who begin using 'legal' drugs may advance to using illegal drugs over time (Clark, 2004; Hawkins et al., 1992; Morrison, 1990). Illicit drug use describes the use of illegal drugs (prohibited under national and international schedules) such as cannabis, heroin and methamphetamine. Illicit drug use can also include the consumption of pharmaceutical drugs or other substances when they are used for purposes beyond those that are medically prescribed. Cannabis is the most popularly used illicit substance among youth aged 14 years or older from Australia (Copeland, 2007); a pattern observed around the world (Hibell et al., 2012; UNODC, 2012). Thielking (2006) found that 22% of the 81 school psychologists surveyed in Australia reported that they worked with students with drug use issues on a 'frequent' basis and 38% on a 'sometimes' basis.

Prevalence. Rates of illicit drug use have fallen among Australian secondary school students. In 2011, 27% of 16–17-year-olds reported that they had used an illicit drug at least once in their life (cannabis, hallucinogens, amphetamines, cocaine, opiates or ecstasy). This was lower than the 33% reported in the same survey in 2005 (White & Bariola, 2012). This reduction may be the cumulative effect of increased expenditure invested in school drug education, as well as effective cannabis prevention and information services which were funded in Australia over the past decade. Australian longitudinal findings on the consequences of cannabis use have also been widely disseminated (Copeland, 2007).

The average age at which young people first try illicit drugs appears later than when they first try alcohol. On average, young people between the ages of 15 and 24 years reported first trying cannabis at age 19, methamphetamine at age 21 and ecstasy at age 23 years (Australian Bureau of Statistics, 2008). However, it has been suggested that more adolescents (aged 14–19) in Australia have reported having ever tried cannabis compared

to tobacco (25.5% vs. 16.2%) (Copeland, 2007). Higher rates of cannabis use are noted in students from the USA relative to their peers in Australia, with differences most pronounced among females (Hemphill et al., 2011). Country level variation exists in rates of lifetime cannabis use among 15–16-year-old students from over 30 European countries, with rates ranging from 4% (Albania and Bosnia and Herzegovina (Republic of Srpska)) to 42% (Czech Republic) (Hibell et al., 2012).

Impact on mental health, wellbeing and educational outcomes. Studies show that use of illicit drugs such as cannabis is related to a range of mental health problems including psychoses (Moore et al., 2007), depression and to some degree suicide (Copeland, 2007), while also reducing school completion and tertiary education degree attainment (Silins et al., 2014). Those who use cannabis are at risk of developing a dependence or addiction to this substance, while functional impairments to cognitive and psychomotor functioning can result from cannabis use (Copeland, 2007). Similar impairments have been noted for other forms of illicit drugs (Ross, 2007).

Substance use affects concentration and attention, mental health and mood, as well as judgement (Bava & Tapert, 2010; Morrison, 1990). Substance abuse has also been linked to compromised academic performance (Bachman et al., 2008), with the effects of substance abuse impairing some of the executive functions required for learning such as memory, concentration and motivation. Research has shown that substance use is associated with lower academic achievement; however it can be difficult to delineate the causal direction of this relationship (Bachman et al., 2008). Some young people turn to substances to assist in coping with school-related difficulties and pressures, while substance use has also been identified as a prospective longitudinal predictor of poor academic outcomes (Fergusson, Horwood, & Beautrais, 2003).

Recognising that drug use and school difficulties are related, and can at times co-occur, emphasises the importance of being cognisant of these dual problems when a student presents with either problem. Building a repertoire of productive coping strategies that can be used to deal with the pressures of schooling may also be important for reducing substance use. As school psychologists frequently work with students to manage stress related to educational pressures (Thielking, 2006), they are well placed to support students to reduce their reliance on harmful coping strategies, such as turning to drugs and other substances, to cope with such pressures.

Antisocial Behaviour

Antisocial behaviours encompass behaviours which limit the rights of others and 'are outside the normative consensus regarding acceptable social behaviour' (Catalano & Hawkins, 1996, p. 150). Examples of antisocial behaviours include interpersonal violence, crime, running away from parents or carers and vandalism. Antisocial behaviour may be considered a form of risk-taking behaviour, as involvement in these behaviours can include high-risk activity (e.g. graffiti near train lines) which compromises the health and safety of those affected by these behaviours. The terms *antisocial behaviour* and *delinquency* are often used synonymously. While we acknowledge the conceptual differences between these constructs, we will use these terms interchangeably in the descriptions which follow given the similarity between these problem behaviours.

Adolescent antisocial behaviour often occurs in the presence of others, particularly within peer groups. Students whose friends engage in antisocial and risk-taking behaviour may themselves engage in similar behaviour out of desire to become more like their friends (Berndt, 1999; Leung, Toumbourou, & Hemphill, 2014). Dodge, Dishion, and Lansford (2006) contend that while delinquent youth may select friends who too are delinquent, there is also a contagion effect when this occurs, which increases the propensity of further engagement in problem behaviours because these behaviours are normalised by group members.

Prevalence. Behavioural and conduct problems (including antisocial behaviour) are troublesome and peak in adolescence (Vassallo et al., 2002). The prevalence of antisocial behaviour is

heightened throughout the middle to late adolescent years at approximately ages 15–19 years (Shepherd & Farrington, 2003; Vassallo et al., 2002), a time when many young people are considering vocational options and further educational opportunities. The years of peaked prevalence of antisocial behaviour coincide with the secondary school years of education; however, rates of some violent antisocial acts (e.g. carrying a weapon on more than two occasions) are reported as high as 11% for boys in very early adolescence (Grade 5) in Victoria, Australia. By contrast, girls engage in lower rates of antisocial behaviour, with rates generally lower than 7% as reported by female students in Victoria, Australia (Hemphill, McMorris, et al., 2007).

Studies have reported similar rates of antisocial behaviour across developed countries, despite countries applying varied societal approaches to deal with antisocial behaviour. For instance, similar rates of violent and non-violent antisocial behaviour have been noted among students from Victoria, Australia, and Washington State, USA, despite school suspensions and police arrests being more prevalent in Washington State than in Victoria (Hemphill, McMorris, et al., 2007). Student engagement in antisocial behaviour is an issue that school psychologists must be equipped to deal with, as Thielking (2006) found an extremely high frequency of presentation of student antisocial behaviour, with 70% of school psychologists reporting that they support students frequently for anger management issues: 59% for perpetrator of bullying issues and 3% criminal behaviour. Interestingly, there was no difference in frequency between those working in primary or secondary schools.

Impact on mental health, wellbeing and educational outcomes. Not only do antisocial behaviours threaten immediate safety, they also impact on health and wellbeing (Buckley, Chapman, & Sheehan, 2012) and are subsequently linked to social, emotional and academic adjustment problems in later life (Fergusson & Horwood, 1998; Rutter, 1989; Shepherd, Farrington, & Potts, 2004). Engagement in antisocial behaviour is also predictive of involvement in other health-risk behaviours including alcohol and substance use (Mason, Hitchings, & Spoth, 2007; van den Bree & Pickworth, 2005), self-harming behaviours (Shin et al., 2009) and risky sexual behaviour (Shepherd et al., 2004), as well as antisocial lifestyles and criminality (Farrington, 2003; Shepherd & Farrington, 2003). These patterns demonstrate the longevity of the effects of antisocial and problem behaviour throughout the lifespan for some.

Antisocial behaviour and delinquency are also commonly identified as important factors associated with school adjustment problems such as academic failure and low school commitment (Catalano et al., 2002; Farrington, 2003; Grigorenko, 2006; Thornberry, Lizotte, Krohn, Farnworth, & Jang, 1991). The causal direction of this relationship is unclear as both have been shown to precede and follow each other and as such a reciprocal relationship between academic achievement and delinquency has been proposed. Educational problems are linked to later problem behaviour. For instance, school disengagement in adolescence has been used to predict later delinquency (Henry, Knight, & Thornberry, 2012), and school failure is also listed as an important factor that precedes an antisocial lifestyle (Shepherd et al., 2004). Similarly, antisocial behaviours, conduct problems and criminality are linked to poor scholastic performance (Grigorenko, 2006). As Patterson, DeBaryshe, and Ramsey (1989) described 'one explanation for this is that the child's noncompliant and undercontrolled behaviour directly impedes learning' (p. 330). Antisocial children and adolescents may also lack the essential academic skills required to facilitate successful learning and academic achievement (Patterson et al., 1989).

It may therefore be an oversimplification of the relationship to assume that there is a unidirectional association between school problems and antisocial behaviour. It is possible that both school adjustment difficulties and antisocial behaviours reinforce each other's occurrence, as evidenced by studies describing a bidirectional or mutually reinforcing relationship between antisocial behaviour and school experiences (e.g. Thornberry et al., 1991). School psycholo-

gists may need to address school adjustment problems and antisocial behaviour concurrently and explore the co-occurrence of these problems when students show signs of either antisocial behaviour or school adjustment problems.

Finally, associating with friends who engage in antisocial behaviour has also been associated with school outcomes (Véronneau, Vitaro, Pedersen, & Tremblay, 2008). School psychologists working with students who exhibit antisocial behaviours may also need to tackle negative peer influences when addressing these behaviours. In this regard, addressing whole school organisational factors and school climate may be an important undertaking for school psychologists as they work towards creating and promoting attitudes and norms within the school community which do not support antisocial behaviour.

Risk-Taking Online

Thus far, this review has focussed on risk taking in adolescence in its more traditional forms. However, as young people become increasingly immersed in technology, it is important to consider risk taking that occurs in the online world. We need to accept that for many young people, the online world is very much their world. It is important to be aware of risks associated with new media and how they impact students' lives.

Contemporary youth are tech savvy and are actively involved in the creation and distribution of risky content using online media (Hemphill et al., 2012). They also communicate and socialise online. Different forms of online risk-taking behaviours relevant to youth include 'sexting' (the production and distribution of sexually explicit images or messages sent via mobile phones or via social media platforms), recording physical fights and bullying and then uploading these recordings online after which there is potential for them to be distributed widely (i.e. 'go viral'), cyber stalking, cyberbullying (bullying through the use of technology), online theft/fraudulent behaviours, conversing with adults about inappropriate topics in adult chat rooms, online games and gambling and internet addiction (Hemphill et al., 2012).

As the Internet is a relatively unmonitored space, participation in the aforementioned activities places young people at heightened levels of risk for potential harm. There is also some concordance between what occurs online and offline, and online behaviours have implications for what occurs at school. This is particularly true for bullying. In a survey of over 1500 10–15-year-olds from the USA, 23% of those who were bullied online also reported that they were also bullied offline, either by the same person in both contexts (12.6%) or by different people (10.4%) (Ybarra, Diener-West, & Leaf, 2007). Further, higher rates of school problem behaviour (detentions, suspensions, weapon carrying, truancy) have been reported for young people who are harassed online (Ybarra et al., 2007), while young people who are victimised online are at greater risk for school and problem behaviours offline (Hinduja & Patchin, 2007). Therefore, school psychologists need to be cognisant of harmful risk-taking behaviours performed online even though such behaviours may be more easily hidden or covert compared with more traditional forms of risk-taking behaviours.

Finally, as many young people have ready and immediate 24/7 access to the Internet and technology (including mobile phones, tablets and computers), addictions to the Internet, computer and online gaming (which are the compulsive use of these technologies) can be problematic among youth. These behaviours include gaming and gambling at night and using social media or texting in normal sleeping hours at night. Such behaviours can interfere with sleep patterns and result in sleep deprivation, which may also interfere with daily, school and social functioning and can impede the wellbeing and development of adolescents.

Risk taking is not uncommon and can manifest in different ways in adolescence. Different forms of risk taking are related and some have similar consequences. Participation in negative risk taking can have detrimental effects on the social, emotional, physical and educational wellbeing of students. Inherent in the high rates of adolescent risk taking coupled with the deleterious outcomes of harmful risk taking means that

having a thorough and clear understanding of the factors leading to their development is important for developing approaches to either prevent their occurrence or appropriately intervene.

Preventing Risk-Taking Behaviours

The prevention of negative risk taking may be a preferred approach to deal with these behaviours. In the current context, *prevention* refers to designing interventions to reduce adverse risk-taking consequences prior to the presentation of problems (Catalano et al., 2002). The prevention science approach to prevention involves modifying developmental pathways that lead to negative outcomes while also promoting positive development. In such efforts, the developmental aetiology of behaviours is studied by examining the longitudinal pathways of target behaviours (Catalano et al., 2002).

Risk and protective factors. Prevention science involves studying and identifying malleable longitudinal factors which contribute to problematic and positive youth development outcomes; these predictors are known as risk and protective factors. A risk factor is a characteristic or experience which may be evident in a student's life, which increases the likelihood of risk taking or a problem behaviour to occur. Conversely, protective factors are factors which offset such risks while decreasing the likelihood of risk taking or problem behaviour and can furthermore increase the chance of positive behaviours occurring (Arthur, Hawkins, Pollard, Catalano, & Baglioni, 2002). Knowledge about risk and protective factors is integrated into efforts to prevent problem behaviours by reducing modifiable risk factors and promoting modifiable protective factors (Catalano et al., 2002).

There is no single risk factor that fully explains developmental problems; rather these problems can be regarded as having complex causes involving several influences and the interaction of multiple risk and protective factors. Likewise, there is no particular one combination that can result in problems for all students—different students may present with a different constellation of risk and protective factors. Risk and protective factors tend to show variation across communities and are often contrasted with structural and societal determinants that affect large population aggregations but show differences across states and nations (Toumbourou et al., 2014). Although this variation exists, there are some shared risk and protective factors across risk-taking behaviours; these will now be reviewed.

Common risk and protective factors of risk-taking behaviours. Similar risk factors have been noted for alcohol use, drug use and antisocial behaviour. An early review paper by Hawkins et al. (1992) was influential in organising what was known to that point of developmental risk and protective factors for youth alcohol and drug abuse. In addition to structural determinants (e.g. the characteristics of markets for alcohol and other drugs) and socioeconomic disadvantage, several sets of community risk factors influence adolescent problem behaviours (e.g. Catalano & Hawkins, 1996; Hawkins et al., 1992) including normative expectations for behaviour and the availability of substances. Risk factors at the family and peer levels include family and peer attitudes and involvement in these behaviours, family management of the young person's behaviour and conflict in the family. School suspension has been shown in some studies to independently increase risks for tobacco use and antisocial behaviour (Hemphill et al., 2011; Hemphill, Toumbourou, Herrenkohl, McMorris, & Catalano, 2006).

While greater attention is often given to identifying risk factors, it is equally important to consider protective factors. Hawkins et al. (1992) organised protective factors according to the following areas: individual characteristics (e.g. a positive social orientation, high intelligence and a resilient temperament), social bonding (e.g. warm, affective relationships social skills, stress and coping adoptive, emotional control, rewards for prosocial behaviour and commitment to conventional lines of action), healthy beliefs and clear standards for behaviour. More recent reviews have tended to confirm similar protective factors (e.g. Toumbourou et al., 2014).

Risk factors for illicit substance use tend to be similar to those for legally available substances.

Illicit substance use behaviours are often more common in families experiencing disadvantage and problems with the law. One heuristic proposed to describe the cumulative effect of risk factors that are common for illicit drug use is the analogy of a snowball (Toumbourou & Catalano, 2005). According to this view, risk factors that emerge early in life (e.g. maternal smoking and alcohol use) can lead to subsequent risk factors that tend to 'adhere' and accumulate as a consequence of the experience of earlier problems (e.g. school failure, antisocial behaviour). Children that grow up with cumulative snowball risk factors are more likely to experience emotional distress and be motivated to use substances to alleviate distress and may engage in heavy and destructive consumption patterns involving multiple substances. Hence similar to a snowball growing as it rolls down a mountain, early problems can lead to accumulating risk factors over the course of development.

The school risk factor of academic failure has also been found to predict externalising problems (Jimerson & Ferguson, 2007), while low academic performance has consistently been found to predict subsequent antisocial behaviour (Maguin & Loeber, 1996), alcohol, tobacco and substance use (Hemphill et al., 2011). Conversely, the positive connections that students maintain with parents and school and to conventional society are believed to reduce the likelihood of them engaging in problem behaviour (Thornberry et al., 1991). School psychologists can play a significant role in strengthening these connections, as school psychologists can act as a conduit between schools, parents and broader organisations when supporting young people (Thielking & Jimerson, 2006).

Toumbourou et al. (2014) note that a consistent observation in prevention science is that risk factors have a cumulative impact. The more risk factors that are present and the longer they persist over time, the greater the subsequent developmental impact. It is important for school psychologists to be mindful of the role of risk and protective factors in students' lives and therefore work towards reducing risk factors and enhancing protective factors in a timely manner to promote healthy development in students. With respect to risk factors for legally purchased drugs such as alcohol and tobacco, the cumulative effect of risk factors tends to be less the result of snowball risk processes and more temporal and can be described with the analogy of a 'snowstorm' (Toumbourou & Catalano, 2005). According to this view, a healthy child can be put at risk by immediate temporal events such as exposure to extreme weather. If such exposure continues for long enough and the child has little protection, adverse health outcomes can result. When the student has low levels of protective factors (such as parents being unavailable to supervise activities or poor relationships with teachers) in a community with readily available alcohol and tobacco and high rates of peer and family use, the likelihood of the student becoming involved in these behaviours increases. The protective advantages of positive relationships with adults suggest there is potential to protect health within risky social environments by increasing healthy adult relationships or other protective factors (analogous to providing shelter in stormy weather). From this perspective, solutions to snowstorm risk processes lie in improving social environments (by reducing peer risk factors and increasing protective social relationships) through the course of development (Catalano & Hawkins, 1996).

Approaches for Managing Risk Taking: What Does and Does Not Work

There is a mounting body of social and economic evidence indicating that intervening during the adolescent years can enhance healthy development and reduce harmful consequences from adolescent risk behaviours. Most of this evidence is of the highest quality, in the form of systematic reviews, meta-analyses and economic syntheses of controlled trials. In the section that follows policies, programmes and activities are described that have evidence for efficacy (beneficial impacts in evaluations with high internal validity) or effectiveness (evaluation trials with high external

validity) in reducing adolescent risk-taking problems.

Risk-taking interventions: *What does work*? In their review Catalano et al. (2012) identified the potential to promote the worldwide implementation of prevention science programmes with goals including reducing sexually transmissible disease and preventing alcohol and drug use. Their review identifies the requirement to address structural policies at the national/state levels and to implement effective interventions at the community, school, family and individual/peer levels. Relevant structural policies supported by quasi-experimental evidence in their review were implementing taxation measures to reduce the economic availability of alcohol and tobacco, raising the legal age for alcohol use and purchase to 21, and graduated licensing to reduce alcohol-related harm among drivers (e.g. Toumbourou et al., 2014). Effective interventions included mentorship at the community level, school reorganisation and health curricula, parent education and family therapy and web-based and interactive skill development interventions for individuals and peer groups (Catalano et al., 2012). School psychologists can assist in the implementation and delivery of these interventions.

Reductions in adolescent alcohol use have been demonstrated in community interventions implemented in the USA (Perry et al., 1996) and Australia (Rowland et al., 2013). An Australian randomised community trial (Rowland et al., 2013) used similar strategies that included monitoring whether youth that look underage were able to purchase alcohol from alcohol sales outlets and providing corrective feedback warnings to outlet managers to reduce future sales, implementing behaviour change campaigns to discourage parents and adults from supplying alcohol to adolescents and school-based health education to ensure youth awareness of the harmful effects of underage alcohol use and strategies to avoid use. These strategies each have evidence for effectiveness in reducing alcohol availability and use in early secondary school students (Rowland et al., 2013). Strategies to monitor and enforce the legal minimum purchase age restrictions are currently well-implemented with respect to tobacco but poorly implemented with respect to alcohol (Vos et al., 2010).

In Australia, the Good Sports programme has been designed and widely disseminated to introduce effective alcohol harm reduction policies into sports clubs. Research examining the implementation of the Good Sports programme has associated the level of exposure to the programme with lower levels of club member risky alcohol use (Rowland, Allen, & Toumbourou, 2012) and driving while alcohol intoxicated (Rowland, Toumbourou, & Allen, 2012).

Communities That Care is a community capacity building framework that has been developed to assist communities to use youth survey data to develop a prevention science-based plan to reduce locally elevated risk factors and enhance locally depressed protective factors. Randomised trials in the USA reveal the intervention can reduce adolescent alcohol and drug use and delinquency (Hawkins et al., 2009). The framework has been adapted for use in Australia, and pre-post-evaluations reveal that it has achieved targeted improvements in risk and protective factors at the individual, family, community (e.g. less favourable attitudes to alcohol and drugs) and school levels (e.g. school prosocial opportunities) and population reductions in alcohol and drug use and antisocial behaviour (Williams, Canterford, Cini, Rajan, & Williams, 2012), with effects similar to overseas trials (Communities That Care, 2016: see http://www.communitiesthatcare.org.au/).

Although school health curricula can offer benefits in encouraging adolescent health behaviour (Toumbourou et al., 2014), school reorganisation whereby curricula are supported with teacher training, and policy reform may offer greater advantages. The Gatehouse Project was delivered in Australian secondary schools and included components addressing healthy school policies, teacher support and training and student emotional competence training. A randomised trial revealed that exposure to the intervention was associated with reductions in alcohol and tobacco use, antisocial behaviour and risky sexual behaviour (Bond et al., 2004). Implementation information for the Gatehouse Project can be obtained from the Centre for

Adolescent Health (Centre for Adolescent Health—Royal Children's Hospital Melbourne, 2008: see http://ww2.rch.org.au/gatehouseproject/).

Family interventions focus both on assisting the parents of adolescents to encourage healthy development and also assisting adolescents as they become parents. Parent education has been shown in randomised trials to be effective in preventing adolescent alcohol, tobacco and drug use by reducing family risk factors and enhancing protective factors (Loxley et al., 2004). Strategies shown to be effective in reducing snowball risk processes in vulnerable adolescent parents include ante- and postnatal home visits by nurses and professionals aimed at supporting high-risk parents to develop good parenting practices, to prevent child abuse, to ensure the child's basic needs are met effectively and to encourage positive child–parent attachment (Kemp et al., 2011) and supporting families who have problems associated with mental health or alcohol and drug use to ensure opportunities for healthy child development (Loxley et al., 2004).

Intervening to enhance parent education in the secondary school years has been shown to be an effective method of enhancing family management practices, and thereby reducing snowstorm risk factors such as adults supplying adolescents with alcohol (McMorris, Catalano, Kim, Toumbourou, & Hemphill, 2011). A randomised trial of the Resilient Families Programme showed that schools using this programme encouraged parents to improve family management practices (such as effective rules to not supply alcohol to adolescents) and through this mechanism reduced school-wide rates of adolescent alcohol misuse (Toumbourou, Douglas Gregg, Shortt, Hutchinson, & Slaviero, 2013: https://www.whatworksforkids.org.au/program/the-resilient-families-program).

There is evidence that brief and interactive online interventions can be effective at an individual level. Effective online sites are available in Australia to offer advice to parents relevant to reducing adolescent alcohol use (Parenting Strategies: Preventing Adolescent Alcohol Misuse, n.d.: see http://www.parentingstrategies.net/alcohol/#) and for parents and adolescents relevant to reducing cannabis use (National Cannabis Prevention & Information Centre, 2008–2014: see http://ncpic.org.au/). Training and evaluation strategies have been implemented successfully in Australia to improve the preventive screening and health promotion offered to adolescents by primary health professionals. Brief interventions by primary care practitioners appear effective for reducing both smoking and early-stage alcohol problems (Foundation for Alcohol Research & Evaluation, 2012), but uptake of effective strategies is typically poor among relevant professionals (Loxley et al., 2004). At the individual level, school psychologists may chose to use motivational interviewing with students to facilitate behaviour change in students. Motivational interviewing is a counselling technique which involves psychologists working collaboratively with students to change problem behaviours by exploring their ambivalence to change behaviours (Jensen et al., 2011). Psychologists using motivational interviewing with students work towards strengthening students' intrinsic motivation to change problem behaviours and has been shown to be an effective intervention for improving adolescent substance use, including alcohol use, cannabis use and illicit drug use (Jensen et al., 2011).

What does not work? There are also prevention and intervention approaches that have been demonstrated to impact negatively on students. It is important that school psychologists are aware of such approaches and advocate within their schools to ensure that these approaches are not implemented to minimise the risk of doing harm to students. Hemphill and Smith (2010) completed a review of prevention and early intervention approaches that not only do not work but may also worsen a student's behaviour. These approaches are summarised below.

Aggregating risk-taking students together in groups. Aggregation of antisocial students greatly increases negative outcomes for already highly deviant students (Dodge et al., 2006). In contrast, inclusion of low-risk students in a group with antisocial students does not turn those students into antisocial students. However, for moderately antisocial or high-risk students, aggregation does increase antisocial behaviour (Dodge et al.,

2006). High-risk students assigned to high-risk-only groups increase their rate of antisocial behaviour, whereas for high-risk youth assigned to groups with low-risk peers, rates of antisocial behaviour decrease. Further, group programmes or therapy including high-risk students which are ineffective or have negative effects in reducing problem behaviour include group-administered psychotherapy with deviant young people (Weisz, Weiss, Han, Granger, & Morton, 1995), social skills training with high-risk only students (Ang & Hughes, 2002), school-based therapy groups consisting of a majority of behaviour-problem students (Gottfredson, 1987) and community-based peer group interventions consisting of high-risk only boys (Dodge et al., 2006).

There have been several recommendations made (Dodge et al., 2006) about policies and strategies that can reduce the negative impact of approaches which aggregate high-risk students together:

- Students in early adolescence who are modestly antisocial or at risk for antisocial or violent behaviour are most vulnerable to peer influence and should not be aggregated in groups.
- The amount of time in a high-risk only group should be minimised.
- Opportunities for unstructured interaction with antisocial or violent peers should be curtailed.
- Groups should be highly structured and led by well-trained and highly skilled leaders.
- Programme directors and leaders should create and maintain a prosocial peer culture.

School policies that aggregate high-risk students. School policies that aggregate high-risk students with each other exacerbate problem behaviour among these students (Dodge et al., 2006). Research on problem behaviour in schools (Jacob & Lefgren, 2003) found that these behaviours increased due to the influence of peers on antisocial students, through interaction that had been fostered by school policies to aggregate antisocial peers. School policies and practices which aggregate high-risk students and which are commonly used in Australian schools include: academic streaming (or 'tracking'), grade retention, self-contained classrooms for students with emotional or behavioural disorders and disciplinary practices that involve suspension, expulsion or placement into alternative schools.

Zero-tolerance policies. Zero-tolerance approaches are a collection of philosophies or policies that mandate the application of predetermined consequences, most often severe, punitive and exclusionary, that are intended to be applied regardless of the seriousness of behaviour, mitigating circumstances or situational context (American Psychological Association Zero Tolerance Task Force, 2008). Zero-tolerance approaches to violent and antisocial behaviour at school (particularly school suspension and expulsion) seek to reduce challenging behaviours primarily through deterrence—by purporting to send a clear message to the school community that certain behaviours will not be tolerated and will incur serious consequences. The approach also claims that in this way, the school climate is also improved by removing students engaging in problem behaviour. This approach to student behaviour may have intuitive appeal for some. However, there is a growing body of research showing that these approaches do not have the anticipated effects and can worsen behaviour.

Much of the research on zero-tolerance approaches has focused on school suspension because they are relatively more common than expulsions. Correlational studies have found that the consequences of suspension include intensifying academic difficulties, school dropout (Arcia, 2006), disengagement from school (Butler, Bond, Drew, Krelle, & Seal, 2005), student alienation, crime and delinquency and alcohol and drug use (American Academy of Paediatrics Committee on School Health, 2003). Australian-led research (Hemphill et al., 2006, 2008) has shown that a student suspended from school is 50% more likely to engage in antisocial behaviour and 70% more likely to engage in violent behaviour at 12 months follow-up. This effect of suspension is over and above other recognised risk and protective factors (Hemphill & Hargreaves, 2010: see http://www.rch.org.au/uploadedFiles/Main/Content/cah/

School_suspension_booklet.pdf for a resource that school psychologists can use to educate schools on the impact of suspension). However, as there have been no randomised trials of the effect of reducing student suspensions, it is not possible to confidently assert a direct causal influence for suspension on adolescent risk-taking behaviour.

Ways in which the use of zero-tolerance approaches could be modified to minimise negative effects include only using these approaches for the most severe behavioural transgressions, allowing for greater flexibility in the application of these approaches so that the circumstances of the situation and teacher expertise are taken into account, working with parents to ensure the student is supervised by an adult while excluded from school, providing and monitoring schoolwork for young people excluded from school and assisting young people to reintegrate back into the school post-suspension.

Role of School Psychologist in Addressing Risk-Taking Behaviours

As reflected above, school psychologists play an integral role in addressing risk taking among students given the clear links between adolescent risk taking and learning and behaviour. Assessment of risk-taking behaviour can be assisted using formal measures completed by parents, teachers and/or adolescents including the Child Behaviour Checklist (CBCL) (Achenbach & Rescorla, 2001), Strengths and Difficulties Questionnaire (Goodman, 1997) and CRAFFT substance abuse screening test (Knight, Sherritt, Shrier, Harris, & Chang, 2002). A large-scale monitoring or population screening system, which regularly measures risk taking among young people, may also be useful. Information from this system could be used to decide on and implement timely programmes and policies that address risk taking in the student population. However, addressing risk taking is not an easy task given that many of these behaviours are performed outside of school. At times, school psychologists are required to act as a conduit between the school, students and external agencies (e.g. police) when young people engage in problem behaviour (Thielking & Jimerson, 2006). Building links and partnerships with local community organisations, police, mental health workers and parents may be important for supporting students while building capacity to address adolescent risk taking. Educating parents, teachers and professionals working with students about the importance of setting limits and modelling positive prosocial behaviour may also be important. As risk taking also can occur online, school psychologists may be responsible for delivering cyber-safety information to students and parents.

The Communities That Care framework offers an effective framework for community service capacity to encourage integrated service delivery models where schools and agencies can work together to prevent young people developing risk-taking behaviours. This model can be initiated by school psychologists to encourage the development of a detailed community youth assessment that leads to an effective prevention service action plan. School psychologists in this context act as 'champions' by facilitating an initial meeting that brings together relevant stakeholders. The first phase of the Communities That Care process is used by stakeholders to plan the work to be done to ensure the community has adequate 'readiness' to work together as an effective community and school coalition (Communities That Care, 2016).

It is highly probable that young people who engage in risk-taking behaviours may also engage in problem or disruptive behaviour in the school context. Furthermore, these problem behaviours can create barriers to successful learning and teaching. School psychologists may educate those within the school about different forms of risk-taking behaviour, those which promote healthy development and those which are inappropriate and are not conducive to learning and positive youth development. In addition, school psychologists may implement programmes and services (as described above) to prevent and/or address student risk taking.

This review highlights the high concordance between various forms of risk taking and academic risks. Therefore, when students present to school psychologists with academic difficulties, it may be important to examine the degree to which they also engage in risk-taking behaviours. Likewise, it is important for school psychologists to assess students' involvement in multiple forms of risk taking, given the common clustering of these behaviours. The links between risk taking and subsequent school problems emphasises the importance of preventing harmful risk-taking behaviours, not only in terms of reducing health risks but also as a way of improving school adjustment and educational outcomes. School psychologists play a role in delivering developmentally appropriate and timely evidence-based prevention and promotion approaches which reduce risk factors and promote protective factors of risk taking. A number of prevention and intervention programmes exist. Choosing a programme or strategy, which has been shown to be effective in producing positive outcomes in students, is an important task for school psychologists. A recently developed Australian website indexes a range of programmes that have evidence for effectiveness (ARACY, n.d.: see www.whatworksforkids.org.au/).

At the individual level, addressing risk taking among adolescents can be complicated by the ethical constraints in which psychologists are expected to practise, especially in regard to maintaining confidentiality (see Australian Psychological Society, 2007). This is particularly true when students who participate in these problem behaviours place themselves or others around them at risk or harm. Likewise, some risk-taking behaviours performed in adolescence are in fact illegal. Psychologists need to work within their code of ethics and adhere to mandatory reporting requirements in these circumstances, even if at the detriment of the therapeutic relationship; however, these limits to confidentiality should be communicated when commencing work with students. Similarly, it is important that school psychologists are not drawn in to any punitive or disciplining measures applied to students engaging in risk-taking behaviours. Not only is this professionally unethical, but it is a process that teachers and principals frequently attempt to have school psychologists be part of and therefore can result in confusion on the part of the student as to the school psychologist's role within the school (Thielking & Jimerson, 2006).

Case Study

Beth, a 16-year-old student, was referred to the school psychologist because of behavioural problems and following concern that she was disengaging from school. Beth was always considered a good student—her grades were in the high-average range. However, over the past year, Beth had missed school regularly and was recently suspended for physically fighting with another student.

A session was held between the school psychologist and Beth to explore the recent changes in her behaviour and potential reasons for her rise in absenteeism. In this meeting, it was uncovered that Beth was recently a victim of cyberbullying. Beth was ashamed and embarrassed by the rumours that were being spread about her and at times didn't want to go to school and face her peers. On top of this, Beth was concerned that revealing photos which she had taken of herself and had sent to her now ex-boyfriend (who was also in her year level) could potentially be used against her if they got in the wrong hands. She finally approached who she suspected was behind the cyberbullying and what started as a verbal argument escalated into a big physical fight. This encounter led to her recent suspension as her school has a zero-tolerance policy on aggressive and violent behaviour.

The psychologist also met with Beth's parents who expressed that suspending Beth was a waste of time, as Beth was quite happy being home while on suspension. She actually preferred it to being at school. Her parents expressed concern that Beth had begun socialising with the 'wrong crowd'. Although they couldn't be sure, her parents suspected that Beth and her friends drink alcohol and smoke from time to time; however,

they weren't too concerned about this, because they figured this type of behaviour is 'normal' among teenagers, a view held by many of their friends who also have teenagers. Beth's mother said that she had tried to talk to her daughter about these issues but cannot seem to get through to her and feels a bit helpless.

Because of the common co-occurrence of adolescent risk-taking behaviours, the psychologist decided to screen for other risk-taking behaviours using the CBCL and the Youth Self-Report. These assessments indicated that Beth's rule-breaking behaviour and aggressive behaviour required attention. Given this, the school psychologist decided to hold regular sessions directly with Beth using motivational interviewing techniques to address some of her behaviour problems. As Beth was a victim of cyberbullying and was also only now considering the potential consequences of her sexting, the school psychologist decided to hold educational information sessions at the school for both parents and students about cyber safety. In addition, the psychologist counselled Beth to work through the emotional problems which arose from this bullying. An educational forum was also held for parents within the school with a focus on educating families about the harmful effects of youth alcohol and drug use. The need to address normative expectations for alcohol and drug use and limit availability of substances was a focus. School health curricula about drugs and alcohol were also provided to all students at Beth's school.

The school psychologist arranged a follow-up meeting with Beth's family to try to build some protective factors in Beth's life. In particular, the psychologist worked with Beth's parents to understand the importance of maintaining clear standards of behaviours and discussed some family management strategies that they could use to manage Beth's behaviour.

Finally, the school psychologist worked with the school leadership team to review the school's suspension policy to ensure that if students are suspended (for severe reasons only), they are supervised by an adult (nonschool staff member) and are provided with schoolwork while on suspension.

Summary

To summarise, adolescent risk taking can include alcohol, tobacco and substance use, as well as antisocial behaviours. These behaviours have the potential to negatively impact the academic trajectories of students, through direct influences on school life and learning and indirectly through their impacts on mental health and wellbeing. Evidently school psychologists play an important role in addressing adolescent risk taking. School psychologists may choose to implement evidence-based prevention and intervention programmes and policies and in doing so may subsequently influence students' school adjustment. A number of programmes and approaches exist which aim to reduce risk taking; however some have limited effectiveness. Therefore, choosing a programme or strategy which has been shown to be effective in producing positive behavioural outcomes in student is an important task for school psychologists.

Test Yourself Quiz

1. A student presents with academic difficulties, is struggling with their school workload and has difficulty concentrating. What types of risk-taking behaviours may a school psychologist screen for when assessing this student?
2. What are some effective approaches that a school psychologist may adopt to reduce alcohol use and substance use in adolescence?
3. How might a school psychologist change ineffective practices within a school to reduce adolescent risk taking?
4. What are some approaches that a school psychologist can use to build capacity within a community to manage adolescent risk taking?
5. A student discloses to a school psychologist that they have participated in illegal risk-taking behaviours. Outline the steps you may be required to take to manage this situation.

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Systems Change in Schools: Class and School-Wide Approaches to Addressing Behavioural and Academic Needs

Katie Eklund, Coosje Griffiths, and Kathie Newton

Introduction

School psychologists play a unique role in identifying and applying systems change in classrooms and schools around the world. School psychologist competencies include the provision of evidence-based assessment, intervention and consultation services that address the behavioural and academic needs of all students (Romer & McIntosh, 2005). Delivering services within a population-based framework of service delivery has been identified as an efficient and effective way to best meet the needs of all students (Cummings & Doll, 2007).

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School Psychologist as Scientist–Practitioner

School psychologists have long embraced a scientist–practitioner model of service delivery. This includes working from well-developed theoretical perspectives, knowledge and skills grounded in the best available research evidence across all phases of human development within sociocultural contexts. School psychologists apply this knowledge and skill set by providing valid, reliable and effective services within multi-tiered systems of support. Similarly, school psychologists are well positioned to assess the effectiveness of student-, classroom- and school-level interventions (Department of Education Western Australia, 2010; Faulkner, 2006; School Psychologists' Association of Western Australia, 2010). This includes synthesising and applying evidence-based interventions to better inform local school contexts. The focus of school psychologists is on positive relationships, student well-being and ethical practice results in the provision of services that balance the needs of the entire school community, including school leaders, staff, parents, students, the community at large and related support services (Jimerson, Oakland, & Farrell, 2007). As the nomenclature, roles and work of school psychologists in Australia differ between states and territories (Campbell & Colmar, 2014), the examples provided herein will largely be through the lens of

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the Western Australian experience, which has employed registered psychologists with tertiary educational qualifications as school psychologists since 1991.

The Role of the School Psychologist in Change Management

The education agenda of improving school effectiveness and increasing efficiencies through whole-school approaches has provided school psychologists with opportunities to participate in systems change. Thus the narrower, more traditional role of assessing individual students has increasingly been broadened to incorporate a focus on more active systems changes to improve outcomes for all students (Faulkner, 2007).

A sound knowledge of the educational system and the school's organisational structures along with the knowledge of change management principles within an educational context has placed school psychologists in a unique position to augment systems change. Systems change is more likely for school psychologists who have opportunities to work across schools, in teams and/or in leadership roles which provide increased opportunities for cross-fertilisation of ideas and strategies that positively influence systems. Given that school psychologists rarely have positional power or authority in schools, they rely on personal power, knowledge and skills to 'lead from behind' in a consultant role (Hylander, 2012; Quinn, 2004). Effective leadership skills include an ability to work collaboratively with a broad range of stakeholders utilising nondirective, active listening skills as well as providing proactive input into whole-school approaches (Hylander, 2012).

Effective leadership in school settings has been found to have some common characteristics reflected in the terms transformational, shared and invitational leadership. A number of important character traits have been identified to achieve this type of leadership, including commitment, persistence, humility, integrity, courage and 'grit' (Elias, O'Brien, & Weissberg, 2006; Hughes & Pickeral, 2013; Novak, 2009). School psychologists are encouraged to reach such aspirational traits and to work with other school leaders in consideration of such characteristics.

Leading change management theorists that have influenced Australian schools in the last decade include Michael Fullan (2006), Hattie (2011) and Kotter and Cohen (2002). Common themes involve identifying and involving all stakeholders at the school, community, regional and state level and recognising how the principal and leadership team are integral in setting the tone, direction and vision for change. Kotter and Cohen (2002) have identified eight practical steps for applying change management processes to an educational context, including (1) creating a sense of urgency, (2) building a guiding coalition, (3) forming a strategic vision and developing key initiatives, (4) broadening the base and enlisting more staff, (5) removing barriers, (6) achieving short-term wins, (7) communicating and sustaining change and (8) incorporating changes into the culture of the organisation. The integration of change management within planning cycle processes are useful tools for school psychologists as illustrated in Fig. 1.

Numerous examples exist where school psychologists have initiated and subsequently implemented sustainable systems-change strategies and programmes both nationally and in Western Australia. Projects where school psychologists have played a key role in initiating and sustaining the implementation of significant system initiatives related to behaviour and learning include:

- Whole-school approaches to prevent and manage bullying (Griffiths, 1993, 1995)
- Effective responses to bullying incidents using the Method of Shared Concern (Rigby & Griffiths, 2010)
- Approaches to effective school case management for individual cases as part of the

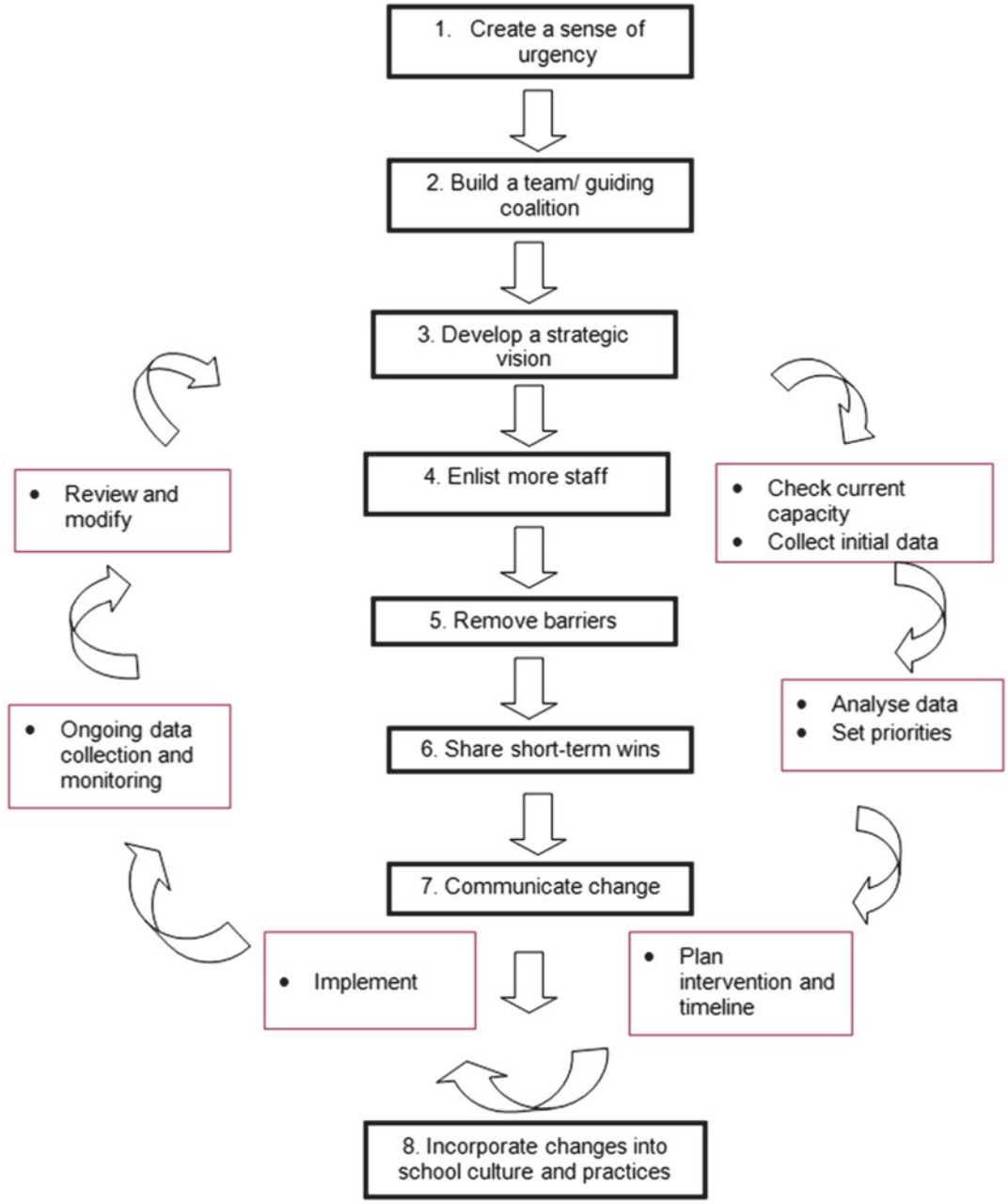

Fig. 1 Integrating the Kotter change management model with the school planning cycle process (planning cycle adapted from Mind Matters planning resource)

national Mind Matters strategy (De Jong & Griffiths, 2008)
- Meeting the needs of students with challenging behaviour through alternative education programmes and settings (De Jong & Griffiths, 2006)
- Supporting the development and implementation of a safe and friendly school framework (Griffiths & Weatherilt, 2006)
- Implementing a national project on prosocial skills training (Prescott, 1996)

Strategies for Developing Behavioural and Academic Competencies

Positive Psychology

Positive psychology principles have helped to move the field of school psychology away from a singular focus on psychopathology and towards a movement in considering student well-being (Gilman, Huebner, & Furlong, 2014). These strategies include developing strengths-based approaches that promote optimism, resilience and well-being across the school environment. For example, the positive psychology movement in Australia has been further enhanced by the training provided by Seligman and his colleagues in Australia, specifically at the Geelong Grammar School (Seligman, 2012). Other schools across Australia have embraced the application of positive psychology principles, as many strengths-based psychological practices, as well as character strengths and virtues, are evident in social and emotional learning (SEL) programmes (e.g. Aussie Optimism), as well as applied to aspects of psychological assessments (e.g. the use of the Strengths and Difficulties Questionnaire; Goodman, 1997). Furthermore, Australia has experienced a growing interest in mindfulness programmes, including programmes such as Smiling Minds (www.smilingmind.com.au) and the MindUP (2011). Although research assessing their effectiveness is still in its early stages, these programmes show promise in providing additional student supports, resulting in improvements to student's behavioural and emotional functioning (Ager, Bucu, Albrecht, & Cohen, 2014; Greenberg & Harris, 2012).

Values Education

The National Framework for Values Education in Australian Schools (2005) launched in 2005 has now been incorporated into the Australian curriculum as general student capabilities across all disciplines. This approach lends itself to a whole-school approach that can be incorporated into positive psychology approach and SEL programmes rather than as a discrete values education programme. Although many schools have embraced values education programmes, there is limited research evidence on the long-term effectiveness of stand-alone values programmes in improving student academic and behavioural functioning (DeNobile & Hogan, 2014).

Social–Emotional Learning

The increased focus on social and emotional learning (SEL) as a means to improve student behaviour, well-being and engagement is becoming more evident by expansion of SEL programmes in schools across Australia. The status of SEL programmes has been enhanced by relatively recent meta-studies confirming that SEL programmes have led to improvements in student social skills, attention, working memory, self-regulation and academic achievement (Durlak, Weissberg, Dymnicki, Taylor, & Schellinger, 2011; Greenberg & Harris, 2012; Sklad, Diekstra, De Ritter, Ben, & Gravesteijn, 2012). Effective SEL programmes are inextricably linked to the prevention of bullying, improvement of peer relationships and a positive school climate (Cohen & Freiberg, 2013; Cross, Waters, & Thompson, 2014; Polanin, Espelage, & Pigott, 2012). School psychologists play a vital role in supporting whole-school approaches to prevention, including SEL programmes, targeted social skills and behaviour management programmes and the management of and response to bullying and cyberbullying (Domitrovich, Cortes, & Greenberg, 2007; Griffiths & Weatherilt, 2006; Rigby & Griffiths, 2010). School psychologists in Western Australia have supported the ongoing implementation of effective, evidence-based SEL programmes in schools. A few of these programmes are described below.

Promoting Alternative Thinking Strategies

PATHS (Kusche, Greenberg, & the Conduct Problems Prevention Research Group, 2011) is a comprehensive, universal school-based preven-

tion curriculum intended to reduce behavioural and emotional problems in children and to enhance children's social–emotional competence. It is designed for elementary-aged youth (grades K–6) and is based on the Affective–Behavioural–Cognitive–Dynamic (ABCD) model of development proposed by Greenberg and Kusche (1993), whereby skills are taught to help children integrate cognition, affect and emotional language and behaviour to promote social competence. PATHS has been used in general and special education classrooms around the world and is associated with improvements in student's social problem-solving skills, emotional recognition, perceived efficacy in managing emotions and reductions in aggressive and disruptive behaviours (Conduct Problems Prevention Research Group, 1992; Domitrovich et al., 2007; Greenberg & Kusche, 1998). The curriculum includes clearly laid out lessons for teachers to use, posters that outline steps for effective problem-solving and coping skills as well as interactive and engaging materials for students.

Aussie Optimism

Aussie Optimism is a social and emotional learning curriculum based on the tenets of positive psychology and Martin Seligman's theory of learned helplessness (Nolen-Hoeksema, Girgus, & Seligman, 1986; Seligman, Ernst, Gillham, Reivich, & Linkins, 2009). The principal objective of Aussie Optimism is to equip children with the tools necessary to navigate social situations skillfully and confidently. It is designed for primary and lower secondary grade students and is comprised of four classroom-based programmes and one family-based programme. Aussie Optimism is aligned to the national health and fitness curriculum of Australia and is taught in 1-h-long session per week over a school term. The programme promotes social competence in children by teaching them how to manage feelings, make and keep friends, problem-solve in social situations, maintain an optimistic outlook and recover from challenges. Aussie Optimism has been shown to reduce incidents of aggression as well as reduce depression and anxiety symptoms in preadolescent and adolescent children (Mazzucchelli, Kane, & Rees, 2010; Quayle, Dziurawiec, Roberts, Kane, & Ebsworthy, 2001; Roberts, 2003).

Friendly Schools Plus

Friendly Schools Plus is a comprehensive anti-bullying programme that is designed to raise social awareness among teachers and students, teaches students effective responses to peer aggression and promotes a school climate that discourages bullying behaviour (Child Health Promotion Research Center, n.d.). It is designed on the premise that proactive enhancements to school climate can reduce incidents of bullying and empower students, teachers and families to prevent bullying behaviour (Cross et al., 2012; Pearce, Cross, Monks, Waters, & Falconer, 2011; Smith, Pepler, & Rigby, 2004; Ttofi & Farrington, 2011). Friendly Schools Plus is designed to reduce peer aggression, including cyberbullying, in primary and secondary schools. It provides direct instruction in five key social–emotional learning skills: self-awareness, self-management, social awareness, relationship management and social decision-making. Friendly Schools Plus is aligned with the national Australian curriculum, the Australian National Safe Schools Framework and the World Health Organization Health Promoting Schools model.

Implementation and Evaluation of SEL Programmes

Given the plethora of social and emotional learning programmes available in Australia and abroad, one of the roles of the school psychologist is to support schools in selecting an evidence-based SEL curriculum that can best meet the needs of their school, taking into consideration variables such as student demographics, costs as well as educator and school resources. Given the

crowded curriculum and limited funds, school psychologists can support schools to become increasingly discerning about implementing SEL programmes that produce positive student- and school-level results. School psychologists are encouraged to consider four key factors in helping schools to select and effectively implement SEL programmes (Durlak et al., 2011). This includes (a) engaging school leadership teams in analysis of school data and consideration of evidence-based programmes that best suit the local context; (b) supporting whole-school planning, including identifying a team to oversee selection, implementation and evaluation; (c) providing or supporting the provision of training and coaching for teachers in the content and its delivery; and (d) assisting in ongoing monitoring and evaluation efforts. A recent informal survey of a group of school psychologists in Western Australia found that some schools implemented SEL programmes as part of a whole-school approach, whilst in other cases, they were implemented in a less coordinated and more ad hoc manner. Awareness raising and feedback on the importance of implementing SEL programmes as a whole-school approach and with fidelity are supported by current research (Cross et al., 2014; Sklad et al., 2012).

A number of resources and tools are freely available to help schools through the selection and implementation process including KidsMatter Primary, Mind Matters and the Collaborative for Academic Social and Emotional Learning (CASEL) websites. These guidelines can provide helpful considerations in ensuring fidelity of implementation and for schools looking to implement or revise existing programmes. Additional considerations for effective programme delivery include the following SAFE acronym (Durlak et al., 2011): programmes should be designed to be (S) sequential, (A) activity-based and participatory, (F) focused on social–emotional skills with a minimum of eight sessions and (E) explicitly teach social–emotional skills. Taken together, these components can help create sustainable and effective SEL programmes.

School-Wide Positive Behaviour Interventions and Supports

School-wide Positive Behaviour Interventions and Supports (also known as Positive Behavioural Support [PBS]) has been implemented in many schools across Australia to help reduce disciplinary infractions and increase students' sense of safety at school by promoting positive, prosocial behaviours and improving school-wide behaviour. PBS provides a process for utilising school-based data to support decision-making on evidence-based strategies (McKevitt & Braaksma, 2008). The premise of PBS is that recognising and rewarding positive student behaviour through continual teaching will reduce unnecessary discipline and promote a climate of greater productivity, learning and safety (Sprage & Horner, 2007).

Whilst punishment-based strategies, such as reprimands, loss of privileges and office referrals, have been traditional responses to student misbehaviour, research has shown that the use of punishment, especially when used in the absence of positive strategies, is ineffective (Lyons, Ford, & Arthur-Kelly, 2011). Instead, teachers are encouraged to use strategies such as pre-teaching student expectations, modelling and reinforcing social behaviour as one way to improve students' educational experiences. This can include identifying behavioural expectations within the classroom (e.g. entering the classroom, transition periods, peer interactions), as well as clearly articulating student behavioural expectations in each setting at school (e.g. playground, hallway, canteen, toilets). Schools that use PBS use a multi-tiered approach to prevention that not only identifies a school-wide (Tier 1) mission to guide behavioural principles but also uses targeted (Tier 2) and individualised (Tier 3) interventions to improve student functioning and school climate (see Fig. 2). A PBS approach should be used in conjunction with carefully delineated academic goals or standards that support multi-tiered system of supports for student learning. Research on links between behaviour and academic outcomes have been highlighted by The Pipeline Project involving the study of 2000

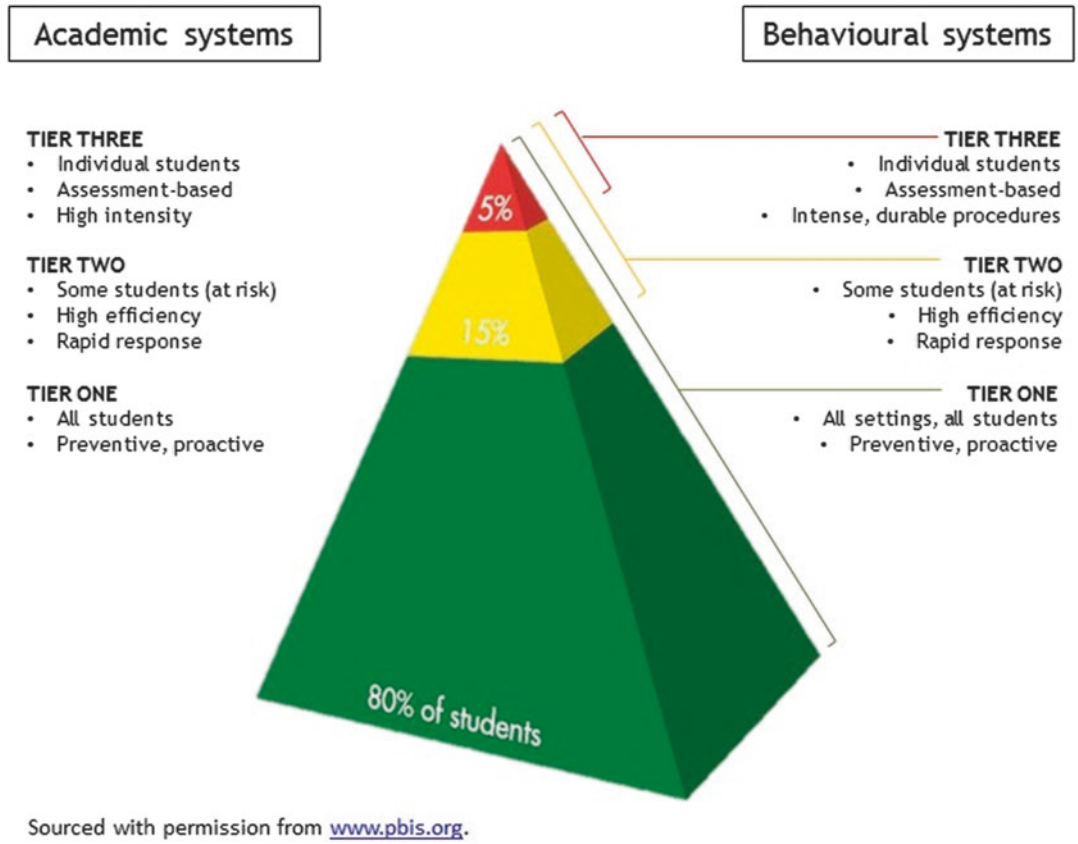

Fig. 2 Three-tiered PBS approach to planning for students utilised by the Western Australia Department of Education (adapted from www.pbs.org) illustrating the planning required for types and levels of intensity of support required at the whole-school, targeted and individual level for both academic and behavioural needs (*Source*: www.det.wa.au)

young people over 4 years in Western Australia (Angus et al., 2012). Education systems focused on student engagement have highlighted the importance of linking cognitive, behavioural and emotional engagement in producing positive behavioural and academic student outcomes (Australian Institute for Teaching and Social Leadership, 2013).

An increased focus on a more integrated approach to data collection is evident and more possible in Western Australia through the Student Information System (SIS) behaviour dashboard, which collates positive and negative student behaviour information and links to other data such as attendance and learning (www.education.wa.edu.au). Regular monitoring of this data enables school leadership teams to identify early warning signs and implement strategies to proactively address emerging behaviour and learning issues at both the classroom and school level. PBS in Western Australia is also enhanced by the provision of ongoing staff training and peer coaching in classroom behaviour management and instructional strategies through the Classroom Management Strategies (CMS) programme (Virgona, 2012).

PBS Case Study

Deb Cochrane is a school psychologist working in a coeducational government primary school located in the metropolitan area of Perth, Western Australia. The school has a multicultural community, whereby

the Aboriginal population represents approximately 12% of the school. Students from Asian, African and New Zealand origins also form significant minority groups in the school. Following analysis of school data, the school leadership team identified social and emotional skills, behaviour management, literacy and numeracy as areas of need. Consultation with the school psychologist led to consideration of a range of frameworks, strategies and programmes. The school leadership team selected PATHS as a whole-school SEL programme as it is an evidence-based and cost-efficient intervention that demonstrates ease of application across universal, targeted and individual approaches (Kusche et al., 2011).

Combining change management and planning principles, the school psychologist encouraged a small group of enthusiastic staff members to initially attend PATHS training, which was followed by training for all staff. A PATHS school-based coordinator was appointed to 'champion' the programme. The KidsMatter framework was adopted to enhance the approach, which includes SEL programmes for targeted groups (e.g. Rainbows). The PATHS initiative was also selected as it ascertains a students' perspective on SEL strategies, encouraging them to offer new ideas, run assemblies and encourage peer support. This strategy in turn raised parent and school community awareness and was recognised by the local council with a recent 'Community Kids' award (2014) and a 2014 WA Children's Week Highly Commended Award as an initiative supporting student self-control, emotional understanding and playground problem-solving.

The school implemented the Positive Behavioural Support (PBS) framework as a whole-school data-driven decision-making and planning approach. The school rules were simplified and made explicit at a whole-school and classroom level and identified SEL competencies taught through PATHS. Teachers were also trained in classroom management and instructional strategies through the state-wide Classroom Management Strategies (CMS) initiative. Based on the National Assessment Program for Literacy and Numeracy (NAPLAN) results, whole-school evidence-based literacy strategies were put in place, including the MultiLit programme (Macquarie University). Through collaboration with the school psychologist, a database of at-risk students was established. Students requiring differentiated curriculum and adjustments at Tier 2 and Tier 3 levels were identified, as well as students within Tier 1 who required individual plans, case management and, in some cases, involvement with the school psychologist.

These frameworks and programmes are now integrated into the ongoing school approach and culture. The various strategies complement each other across multiple tiers of service delivery and the school's daily operations, resulting in significant improvements in student behaviour and academic outcomes, including literacy and numeracy NAPLAN results.

Student Engagement

Research has documented that the proportion of time students are actively engaged in the learning and activities of the classroom best predicts their academic achievement and the overall quality of the classroom (Good & Grouws, 1977; Waters, Cross, & Runions, 2009). A teacher's effectiveness can often be gauged by how instructional strategies are selected and behavioural management strategies are employed to best match the learning needs of students. However, no one has yet generated a formula that can be uniformly applied to each student or classroom. Productive classroom time is a function not only of students' personal qualities but also of the teacher's personality, teaching style and management of the environment.

As direct instruction is often the primary methods by which teachers instruct students, time can often be lost in organising and beginning instruction, managing transitions, dealing with misbehaviour and responding to requests for assistance. However, if students are actively engaged in instruction, then it is difficult to engage in incompatible behaviours (e.g. blurting out, talking to peers, being out of seat). Teachers can increase active engagement in the classroom by identifying strategies that increase students' opportunities to respond to instruction and feedback (e.g. asking question, presenting a demand).

Two common methods used in the classroom include choral responding, where all students answer a question in unison, and response cards, where all students write their answers to a question on erasable boards or tablets and then hold up the answer for the teacher to see (Simonsen, Fairbanks, Briesch, Myers, & Sugai, 2008). Student response systems (e.g. clickers, electronic devices) are another method whereby teachers can use technology to increase opportunities for students to actively engage in learning. Research demonstrates that today's learners prefer to process pictures, sounds and video rather than text (Hart, 2008). Implementing audio and visual learning tools in the classroom can increase engagement and add variety to the learning environment, such as the use of podcasts or short video clips. Increasing students' opportunities to respond and the pace of teacher instruction has led to increases in on-task behaviours and the number of correct student responses (Sutherland, Alder, & Gunter, 2003).

Class-wide peer tutoring is a second strategy that teachers can utilise by pairing students to serve in the role of tutor and tutee. Tutoring could be used during tasks such as paired reading practice or teacher-directed activities, allowing students access to peer as well as teacher support. Class-wide peer tutoring has been shown to improve not only academic engagement but also reading achievement (Simmons, Fuchs, & Fuchs, 1995). Providing high-quality activities can increase student engagement, even during independent learning time. Many independent student learning activities for K–3 classrooms created by the Florida Center for Reading Research can be downloaded at no cost from the following website: http://www.fcrr.org/Curriculum/studentCenterActivites.htm.

Building Parent Partnerships

One school-wide support that is central to student achievement is parent–teacher partnerships. Positive relationships between parents and school educators, especially relationships marked by trust, have been found to predict positive academic, social and behavioural outcomes for elementary students (Bryk & Schneider, 2002). When students see that parents and teachers communicate with one another and enforce similar routines at home and school, academic achievement gains have been demonstrated in preschool through high school settings (Barnard, 2004; Galindo & Sheldon, 2012; Hill & Tyson, 2009; Kim, Sheridan, Kwon, & Koziol, 2013; Powell, Seung-Hee, File, & San Juan, 2010). In fact, collaborative relationships between elementary educators and parents are predictive of long-term success, including decreased dropout rates and increased on-time high school graduation (Barnard, 2004).

Joyce Epstein, director of the National Network of Partnership Schools at Johns Hopkins University, developed 'Six Types of Involvement' as a template for involving parents and other adults in schools. These categories include parenting (e.g. helping families with basic household needs and with parenting skills), communicating (e.g. designing regular modes of communication between school and home), volunteering (e.g. encouraging parents to help in classrooms), learning at home (e.g. providing clear information that allows parents to help with homework), decision-making (e.g. including parents in decisions related to school governance) and collaborating with the community (e.g. enriching the school by drawing on resources from the parent community; Epstein, Coates, Salinas, Sanders, & Simon, 1997). Dr. Epstein's template is a widely cited model for engagement among home, school and community that can be used to promote positive student outcomes at all grade levels.

Interdisciplinary and Interagency Collaboration

Within the public health framework of a multi-tiered system of support, such as the Interconnected Systems Framework, a collaborating team of education and mental health professionals provides a range of services across a continuum of assessment, intervention and consultation services (Andis et al., 2002). It is imperative that school mental health professionals (e.g. school psychologists,

school counsellors, school social workers) work collaboratively with community-based service providers and agencies so that comprehensive services can be provided to children and families. This can include a range of services from identifying community resources to help families meet personal needs (e.g. food bank, clothing, shelter) to more targeted and intensive services, such as the provision of individual, small group and/or family therapy or counselling services. Identifying the needs of the community at large can help school-based professionals work in tandem with outside professionals to provide an effective continuum of mental health services. This can include the provision of evidence-based services both within and outside of the school setting. Research indicates the need for access to implementation supports such as coaching, training and technical assistance to promote high-quality implementation of evidence-based programmes in 'real-world' settings (Fixsen, Naoom, Blasé, Friedman, & Wallace, 2005). Thus, a conduit for providing effective mental health services in schools is certainly access to a strong infrastructure of implementation supports. Similarly, consultation and collaboration with parents, youth, teachers, school administrators, other mental health professionals and key community stakeholders are critical to providing effective behavioural and academic supports (Eklund & Dowdy, 2014; Weist et al., 2005). Consultation and collaboration promote engagement and service quality across the continuum of services.

Strategies for Supporting School Climate and Student Functioning

Schools are called upon to embrace evidence-based practices and interventions. The current educational climate is one with increased accountability as schools work to ensure the academic, behavioural, physical and psychological well-being of all students. Although many efforts have been made to bolster the academic needs of students (e.g. Response to Intervention, academic standards), the environmental context of student learning within the classroom and school at large plays an integral role in helping students achieve academic and social–emotional success.

Supporting School Climate and Culture

School climate is defined as 'the quality and character of school life… based on patterns of people's experiences of school life and reflecting norms, goals, and values' (Cohen, McCabe, Michelli, & Pickeral, 2009, p. 180). A sustainable, positive school climate fosters positive youth development, affirming teacher–student interactions, and student achievement. The following have been identified as five key elements of safe and healthy schools: (a) positive and productive relationships, (b) awareness of and respect for diversity, (c) transparent and unbiased norms and expectations, (d) individual value and shared purpose and (e) opportunities for growth and achievement (O'Malley & Eklund, 2012). These five elements have been found to promote improved school climate, result in lower rates of student problematic behaviours as well as promote positive staff and student outcomes (Cohen et al., 2009; McNeely, Nonnemaker, & Blum, 2002; Whitlock, 2006). Teachers and school staff should consider a centralised focus on these five elements when working to promote and sustain school climate at the classroom, school and district levels. Specific examples are provided below.

Positive and productive relationships among staff and students can be enhanced through utilisation of evidence-based programmes designed to improve social and emotional skill development of students. This may include locally developed lessons to address the needs of a particular school, classroom or groups of students, as well as packaged programmes such as Promoting Alternative Thinking Strategies (PATHS) or Second Step that are designed to help students develop appropriate problem-solving and coping skills (Edwards, Hunt, Meyers, Grogg, & Jarrett, 2005). Professional development opportunities should be provided for staff committed to the development of social and emotional competencies required to work with youth.

Awareness of and respect for diversity include identifying curricula, classroom activities and wall images that represent the demographics of the students in the school. Educators should also communicate high expectations for all students,

regardless of background. *Transparent and unbiased norms and expectations* can be used by allowing students to participate in classroom and school norm- and rule-setting activities at the beginning of the year. Allowing students to have an active voice in creating rules can lead to increased student buy-in as youth are more apt to follow rules that they have helped to develop. Eliciting student voices within the school can help promote a shared sense of community, where adults clearly value and recognise student opinions.

Individual value and shared purpose are further promoted by giving students an active voice in service-learning projects, advisory committees and school governance councils. School staff members can also share a sense of responsibility regarding school activities, school improvement goals as well as professional development planning. Finally, *opportunities for growth and achievement* can be built by establishing time for staff to attend professional development, as well as setting academic and professional standards for students and staff that are high, but achievable, as well as widely recognised and celebrated. Table 1 provides a detailed list of additional strategies for promoting healthy working and learning environments.

School Climate Assessment Measures

Although there are hundreds of school climate assessment measures available, research demonstrates that school leaders are not using scientifically sound assessment tools that (a) meet most or all of the dimensions that substantially impact school climate and (b) do not fail to consider students, parents and educator opinions of school climate (Cohen, 2006; Cohen et al., 2009; Freiberg, 1999). In a recent national survey conducted in the United States (MMS Education, 2006), results indicate that 59 % of building- and district-level administrators endorse using school climate surveys; however, 37 % of those had developed an in-house instrument that may not be scientifically sound. Evaluating school climate provides one window into the social, emotional and academic dimensions of school life and may provide opportunities to promote student learning and positive youth development. Beginning in 2014, the Australian Department of Education required all schools to administer the National School Opinion Survey (NSOS) to gauge student, parents and staff opinions on their school's climate and the quality of education being delivered (www.schoolsurvey.edu.au). The results gained from these surveys will increasingly become another key decision-making tool for schools in Australia. Additional evidence-based assessments are available that meet the aforementioned criteria.

Comprehensive School Climate Inventory (CSCI)

The Comprehensive School Climate Inventory assesses four school climate dimensions: safety (physical and social–emotional), relationships (respective for diversity, morale, leadership, home–school partnerships), teaching and learning (quality of instruction; social, emotional and ethical learning; professional development; leadership) and the (external) environment (Cohen et al., 2009). This measure takes approximately 15–20 min to complete and includes a results' report that identifies research-based guidelines around ten process recommendations (how to do it), five action recommendations (where to start) and ten sets of programmatic recommendations (guidelines and instruction recommendations).

California Healthy Kids Survey

The California Healthy Kids Survey (CHKS) was designed in the 1990s to measure health risk and resilience information that is provided to schools, districts and communities as part of the No Child Left Behind Act. The assessment modules are developed by WestEd's Health and Human Development Program in collaboration with the California Department of Education. The CHKS is administered in all California schools to collect

Table 1 Key characteristics of safe and healthy schools

Positive, productive relationships
• Social and emotional skill development of youth is supported using evidence-based programmes as well as structured, natural opportunities for skill building • Collegial relationships among school staff are supported and encouraged through systematic school planning • Professional development opportunities are provided for staff to support the development of the social and emotional competencies required to work with youth • Caring home and neighbourhood adults are encouraged to volunteer in classrooms and shared school spaces
Awareness and respect for diversity
• Students can 'see' themselves in school materials. Curricula, classroom activities and wall images represent the demographics of the school • School staff members reflect upon their own potential biases and assumptions • Caring home and neighbourhood adults from diverse groups are encouraged to volunteer at school and actively participate in school decision-making activities • Teachers reflect upon the diverse backgrounds (i.e. culture, language, family history, religion) of their students and modify curricula to meet their needs • School adults communicate high expectations for *all* students, regardless of background
Transparent and unbiased norms and expectations
• School policies are applied to all students, regardless of gender, race, socio-economic privilege or perceived sexual orientation • Students and caring home and neighbourhood adults are provided opportunities to participate in classroom and school-wide norm- and rule-setting activities • School rules and expectations are reiterated on a regular basis and are visible within classrooms and shared spaces • Professional development opportunities are provided for staff to support the development of positive classroom management practices
Individual value and shared purpose
• School staff members share a sense of responsibility over school activities and goals • Staff members are given opportunities to inform decisions related to future directions of school activities, including professional development planning • Students are encouraged to participate in governance councils and advisory committees • Students are encouraged to make shared contributions to the school and neighbourhood communities through a variety of experiences, including service-learning projects
Opportunities for growth and achievement
• Cooperative planning and professional development time for school staff are supported, encouraged and expected • Curricula are rigorous and meaningful, emphasising critical thinking, application of knowledge and self-reflective learning • Academic and professional standards for students and staff are high but achievable • Achievements of staff and students are celebrated and widely highlighted

Note: This table is adapted from O'Malley and Eklund (2012)

information about youth health and risk behaviours that will assess student needs, justify programme funding, guide programme development and monitor progress in achieving programme goals. Modules of this survey can be used to assess a number of student variables, including school and family assets, internal resiliency and student engagement. The School Connectedness Scale, in particular, includes a five-item Likert scale constructed from items originally in the National Longitudinal Study of Adolescent Health (McNeely et al., 2002). This subscale is designed to assess how students feel towards school, including items such as 'I feel close to people at this school' and 'I am happy to be at this school'. This scale has demonstrated strong psychometric properties, including a reported internal consistency reliability of 0.79 (McNeely et al., 2002).

Connecting Assessment Results to School Improvement Efforts

Results from assessments of school climate can be used in a number of important ways. First, results should set into motion how schools go about addressing school community needs with the implementation of strategies. A number of empirical studies demonstrate that safe and inclusive schools improve student academic achievement (Brookover et al., 1978; Hoy & Hannum, 1997; Klem & Connell, 2004). A number of evidence-based curricula and interventions are available to assist schools in development efforts (e.g. Adelman & Taylor, 2005; Berkowitz & Bier, 2005; Elias, Zins, Graczyk, & Weissberg, 2003).

Second, teacher preparation programmes should consider how teachers learn about the purposes of education as well as include specific instruction on developing social and emotional learning curricula. This can include understanding elements of school climate so that teachers understand the organisational structures and patterns that may positively influence student well-being in educational settings (Cohen et al., 2009).

Conducting School-Wide Screening for Student Emotional and Behavioural Concerns

Universal screening for behavioural and emotional risk is a proactive approach of using brief and efficient measures to identify students at risk for future difficulties (Eklund & Dowdy, 2014; Jenkins, Hudson, & Johnson, 2007). Universal screening can be used within multi-tiered systems of support to not only identify individual students who may be at risk but also to provide population-based data on the behavioural and emotional functioning of particular classrooms, grades and schools within a district (Eklund & Tanner, 2014; Levitt, Saka, Romanelli, & Hoagwood, 2007). Research suggests schools provide an ideal setting for identifying at-risk students due to the large number of youth in school and the ability to provide follow-up care within schools (Glover & Albers, 2007; Levitt et al., 2007). For example, providing behavioural supports in schools allows for the modification of environmental contingencies towards the disruption of problem behaviour development. Indeed, children with childhood behavioural difficulties who are identified early and receive intervention are likely to make significant gains in positive emotional and behavioural functioning (Brophy-Herb, Lee, Nievar, & Stollak, 2007; Eklund & Dowdy, 2014).

Available Screening Tools

A number of psychometrically sound systematic screeners are available that can effectively identify students at risk of behavioural and emotional concerns. Ideal screening measures are ones that are both scientifically rigorous with respect to issues of validity and reliability and still practical in terms of time required for administration, scoring and interpretation (Lane et al., 2008). Educators and school-based practitioners are encouraged to select an instrument that is time and cost-efficient, as well as meets the intended purpose for screening (for a more comprehensive review, see Levitt et al., 2007). Three commercially and publically available screening measures are described below with these parameters in mind.

Behavioural and Emotional Screening System (BESS)

The Behavioural and Emotional Screening System (BESS) is a screening measure used to identify behavioural and emotional strengths and weaknesses in youth ranging from preschool to high school (Kamphaus & Reynolds, 2007). It is designed to assess both internalising and externalising problems, school problems and adaptive skills. Teacher, parent and student rating scales are available, ranging from 25 to 30 items, and each form can be completed in approximately 5 min or less. Respondents have four rating options—never, sometimes, often or almost always for each item. The BESS may be scored by hand or with computer software. The BESS demonstrates acceptable psychometric properties, having good split-half reliability (.90–.96), test–retest reliability (.80–.91), inter-rater reliability (.71–.83), sensitivity (.44–82) and specificity (.90– .97) for predicting students who demonstrate emotional and behavioural problems (Kamphaus, DiStefano, Dowdy, Eklund, & Dunn, 2010).

Social, Academic and Emotional Behaviour Risk Screener

The Social, Academic and Emotional Behaviour Risk Screener (SAEBRS; Kilgus, Chafouleas, Riley-Tillman, & von der Embse, 2014) is a brief tool supported by research for use in universal screening for behavioural and emotional risk. The measure falls within a broad class of highly

efficient tools, suitable for teacher use in evaluating and rating all students on common behavioural criteria (Severson, Walker, Hope-Doolittle, Kratochwill, & Gresham, 2007). The SAEBRS is designed for use in the K–12 setting. Research suggests the SAEBRS may be used to evaluate student functioning in terms of overall general behaviour, as assessed by a broad total behaviour (19 items, ebi.missouri.edu). Research further suggests the SAEBRS may be used to evaluate student behaviour within multiple interrelated narrow domains, as assessed by the social behaviour (six items), academic behaviour (six items) and emotional behaviour (seven items) subscales.

Student Risk Screening Scale

The Student Risk Screening Scale (SRSS; Drummond, 1994) is a seven-item screening measure used to detect students with antisocial behaviour. Teachers rate each student in their classroom on each item—steals; lies, cheats and sneaks; behaviour problems; peer rejection; low achievement; negative attitude; and aggressive behaviour—using a four-point Likert scale ranging from 0 to 3 (0 = *never*, 1 = *occasionally*, 2 = *sometimes*, 3 = *frequently*). Class-wide screening typically takes 10–15 min per class to complete. The SRSS scores have been found to be predictive of negative academic and behavioural outcomes 1.5–10 years later (Drummond, Eddy, & Reid, 1998) and has demonstrated utility in identifying elementary to high school students (Drummond et al., 1998; Lane et al., 2007). Whilst the SRSS is a shortest available measure, it is more reflective of externalising behaviours as only one of the seven items addresses internalising behavioural concerns.

Linking Screening Results to Interventions

A screening procedural framework can be useful in using results from screening data to guide the development of interventions in the school setting, including determining how screening align with existing multi-tiered systems of supports (MTSS). Creating a framework can assist educators with determining how school resources and educator time can be used more efficiently by identifying the percentage of students at risk of behavioural and emotional concerns at the individual, classroom and school levels. Serviceable base rates of students refer to the proportion of at-risk students in each classroom and across the entire school that can reasonably be served via individual or small-group interventions (Kilgus & Eklund, 2015; VanDerHeyden, 2013). In this way, schools can determine the percentage of students they may be able to best serve by outlining the availability of school resources, staff and time. For example, implementation of Tier 2 supports (e.g. social skills instruction, check in/check out, daily report cards) is likely difficult within schools that have a large number of students with behavioural and emotional concerns. Instead, schools are encouraged to consider the number of student needs that can be met by providing school-wide and classroom-level supports (e.g. social–emotional learning curricula, PBIS considerations, etc.). Figure 3 provides a graphic depiction of a universal screening procedural framework that outlines what level of support is needed according to the percentage of students identified as at risk in each respective classroom and/or school.

Case Example

Vista Elementary School is excited to learn that a new full-time school psychologist will be joining their school in the fall. Given an increased number of office discipline referrals and students expelled for aggression and conduct problems, the school district has decided to reallocate resources by providing additional supports for at-risk students. The principal and school psychologist decide to meet with the school leadership team at the beginning of the year to discuss how they will begin to address the behaviour and discipline problems at school. In reviewing data, the leadership team realises they don't have an accurate assessment of what percentage of students

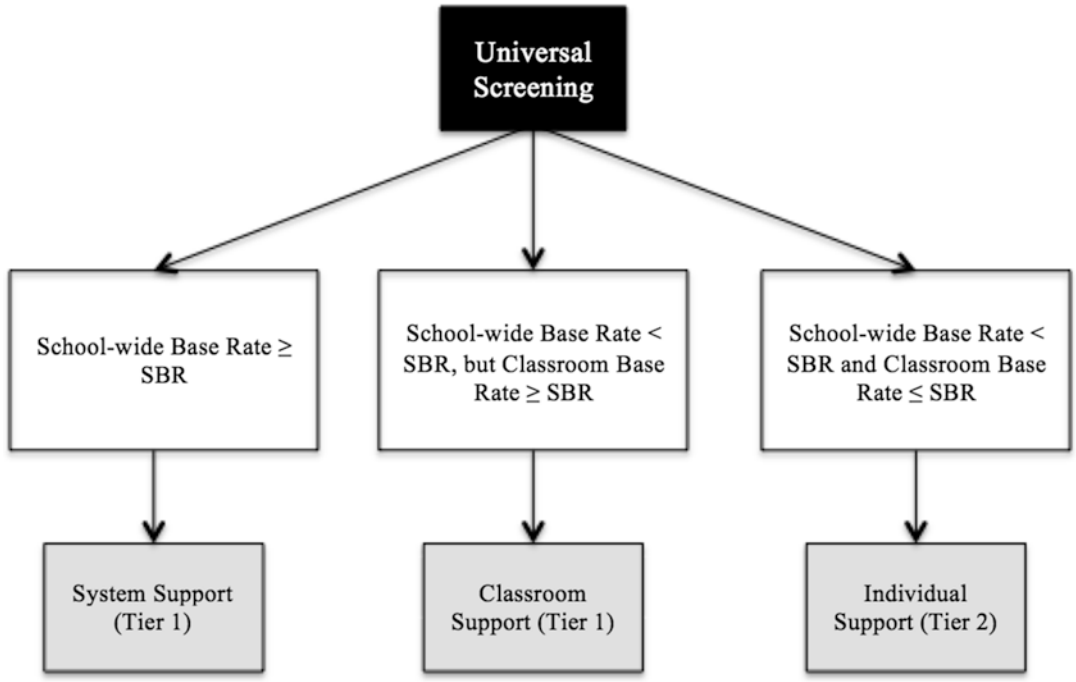

Fig. 3 Graphical depiction of the newly proposed universal screening procedural framework (Kilgus & Eklund, 2015). *Note*: *SBR* serviceable base rate

need behavioural or mental health support. As one of the school improvement goals includes providing supports to students with emotional and behavioural concerns, they determine that a needs assessment is warranted. Dr. Stephens, the new school psychologist, recommends universal screening to identify at-risk students and provide appropriate supports. As the school already has a Response to Intervention (RTI) process in place for academics, they are excited to learn about a multi-tiered system of support for behaviour. The school counsellor and psychologist meet to create a plan for how they will connect student screening data to class-wide, small-group and individualised student support.

Supporting Curriculum Differentiation

Effective schools meet the instructional needs of all learners. Students at both high- and low-achieving ends of the continuum are too often overlooked when schools settle for a one-size-fits-all approach to education. Tailoring instruction to meet the needs, abilities and learning styles of every student is an important step in maximising achievement (Tomlinson, 2014). Response to Intervention (RTI) and differentiated instruction (DI) are school-wide supports that ensure effective instruction for every learner.

Response to Intervention

RTI is a systems-wide approach to meeting the needs of all learners and providing targeted instructional support to students who are at risk of falling behind (Fuchs & Fuchs, 2006). In contrast to beginning with a student referral that focuses on student deficits and identifying target variables, the defining quality of RTI is an approach to decision-making using universal screening and outcomes of intervention and progress monitoring sequences as the database for service delivery determination at the school,

classroom and individual level. During each level of implementation, educators monitor and collect data to guide future instruction and decision-making (Fuchs & Fuchs, 2006). The National Center on Response to Intervention (2010) offers a comprehensive list of screening tools to assist schools in screening and progress monitoring (e.g. DIBELS Sixth Edition).

RTI is seen as an effective instructional strategy, in part because of its premise that schools can teach *all* students (e.g. Hattie, 2012). Instruction within RTI is considered a multi-tiered and data-driven approach. Tier 1 instruction, also known as universal or whole-class instruction, consists of research-based classroom strategies that are known to be effective for the majority of students. Universal interventions include scientifically sound core curriculum and instruction, a high-quality school and classroom environment and evidence-based instructional practices. Therefore, ruling out poor instruction as a factor contributing to student's failure is done systematically throughout the RTI process. Guidelines suggest that effective Tier 1 supports should meet the needs of 80–90 % of students in a given population (Kame'enui et al., 2005).

Students needing additional supports are served in a second tier consisting of short-term empirically based selected or *targeted* interventions. Tier 2 services include targeted academic and/or behavioural supports for students with increased risk factors, who do not make adequate gains despite high-quality, evidence-based instruction, and for whom evidence-based approaches were not sufficient at Tier 1. Within the classroom, Tier 2 supports may include small-group repeated practice or reteaching with the use of supplementary supports (e.g. visual, kinesthetic or multi-sensory learning) for higher-needs learners. For example, students who have difficulty reading may be offered additional fluency or comprehension support, whilst students who are impulsive or struggle with work completion may benefit from self-monitoring strategies. Progress monitoring data is used to identify learners who do not respond to targeted interventions as close monitoring and adjustment of instructional strategies are critical. In this model, each level of prevention increases in intensity and magnitude, with a goal of providing more focused interventions in subsequent tiers for students in need of targeted assistance. A local example of considerations at each tier is provided in Table 2.

Students who do not demonstrate learning after repeated interventions may require Tier 3 or intensive intervention and supports. Tier 3 instruction, delivered to individuals or small groups, consists of focused, evidence-based curricula and individualised, intensive, explicit and sustained strategies delivered by an educational specialist (e.g. reading specialist, special education teacher; Nayton, 2014). Tier 3 interventions are necessary for students who fail to make progress in a specific area (or progress at an unusually slow rate) even when provided with a high-intensity, evidence-based intervention or show evidence of adjustment disturbances so pronounced that they are not able to benefit from schooling without accommodations. School psychologists play an important role in effective implementation of an RTI systems-wide framework where instructional decisions are monitored for effectiveness and adjusted to meet the needs of every learner. School psychologists may be needed to conduct a psychometric assessment and provide psychoeducational advice within a collaborative case management framework (De Jong & Griffiths, 2008). Research suggests that without such support, students with learning difficulties experience negative academic and behavioural outcomes (Nayton, 2014).

Differentiated Curricula

Differentiation is a broader framework of individualised instruction within which RTI and other interventions exist. Differentiated instruction (DI) is a wide-reaching approach whereby teachers recognise and respond to the unique needs and interests of individual learners (Tomlinson, 2014). Often without knowing it, teachers differentiate daily in classrooms all over the world when they provide students with differing spelling lists, adapted writing assignments or

Table 2 Example taken from the Western Australia Department of Education on the role of school psychologists across the three-tiered approach (learning and behaviour)

Tier 1: universal programmes *School-wide systems for all students*	Tier 2: selected programmes *Targeted programmes for targeted students*	Tier 3: indicated programmes *Individual interventions for identified students*
Support school leadership teams in: • Analysing current school and student data to identify strengths, risks and needs • Reflecting on current processes, strategies and programmes • Considering evidence base for modification of current school practices utilising existing and new programmes • Assisting in whole-school change processes • Supporting collection and analysis of data to evaluate a range of factors including: – School community climate – Student engagement – Learning and behaviour – Effectiveness of strategies – Fidelity of programme implementation • Supporting the school in the adoption of whole-school frameworks to develop comprehensive evidence-based strategies, e.g. National Safe Schools Framework (NSSF), Positive Behavioural Support (PBS) and Response to Intervention (RTI) • Recommending the training and coaching of staff in evidence-based: – Literacy programmes and instructional strategies – Behaviour programmes including PBS, CMS and Team Teach – SEL and bullying prevention programmes such as PATHS, Friendly Schools Plus, Aussie Optimism	Assist school leadership to identify potential and at-risk student populations and recommend strategies for factors such as: • Transition: starting school, early to middle years, primary to secondary schools, school to work • Children in care • Culturally and linguistically diverse (CaLD) or English as an additional language or dialect (EALD) students • Socio-economic disadvantage Assist school leadership to identify cohorts of students with: • Behaviour difficulties • Relationship issues, e.g. bullying/cyberbullying • Learning difficulties • Social and emotional issues Recommend and in some cases support evidence-based targeted group or programmes such as: • Transition programmes • Parenting programmes, e.g. Triple P • Curriculum programmes and learning adjustments for students with learning difficulties • Targeted SEL and anti-bullying programmes for students, e.g. Friendly Schools Plus and Aussie Optimism	Collaboratively identify risk factors and those students requiring more intensive support Prioritise those students that require school psychologist involvement to conduct and report on psychological assessments, conduct collaborative for case management, liaise with other agencies and work closely with parents Support the development of individual student plans including: • Case formulation • Individualised instructional and curriculum adjustments and accommodations • Functional behavioural assessment, planning and support • Individualised social skills and self-management instruction • Other agency involvement • Collaborative decision-making within case management framework Support effective responses to bullying and cyberbullying incident, e.g. shared concern method Support risk management and critical incident planning and response including violence de-escalation strategies, e.g. Team Teach

choices of math activities. A teacher who skillfully differentiates may adapt her instruction based on student differences in readiness, learning style and personal interests or simultaneously attend to each of these factors. As a result, DI classroom communities acknowledge that students differ in culture, language, gender, motivation, ability and experience and leverage those differences to benefit the group.

Differentiated instruction is not simply a matter of offering choices and accommodating for individual interests. In this era of standards-based

education, ensuring all students reach instructional targets is arguably as important as how they get there. Tomlinson (2014) compares education to a journey, with differentiation being the road by which students travel or the means by which they arrive. In other words, whilst students may differ in their approach to learning, ultimately their destination remains the same. The overarching task of educators, therefore, is to monitor and adjust instructional methods that are engaging and effective. Teaching and learning adjustments are part of an effective teaching and learning cycle that may include a differentiated curriculum as part of a whole-school approach. For those students whose learning difficulties are persistent, the school psychologist and teacher can work together to further analyse school data and, in some cases, more targeted assessment data (Australian Capital Territory Department of Education and Training (ACTDET), 2014). In this manner, school psychologists can engage in a dynamic professional decision-making cycle to make curriculum and/or instructional adjustments that optimise learning and well-being for at-risk students (Berman & Graham, 2013).

Monitoring and Evaluation

Assessment in the classroom takes many forms: pretests, unit tests, midterms and final exams. However, one frequently used type of testing, formative assessment, may sometimes go unnoticed by students. Formative assessment is the monitoring of one's teaching for the purposes of providing feedback and adjusting instruction. Formative assessment is viewed as one of the most important tools a teacher can use, as it serves as the means by which feedback is given to both students and the teacher (Marzano, 2007). Examples of formative assessment include anecdotal notes made by teachers regarding student responses during whole-group discussion, assessing daily journal entries to see what questions students have and asking a small group of students to solve several math problems to assess their application of a newly taught strategy. A growing list of empirical studies endorses the use of formative assessment to improve student achievement in mathematics (Ysseldyke & Tardrew, 2007) and in science (Vannest, Soares, Smith, & Williams, 2012). Effective teachers do not simply assume (or hope) a lesson went well, but gather data to inform their instructional plan for the next day. Thus, assessment of learning and teaching is inextricably linked (Tomlinson, 2014).

At the school-wide level, formative assessment includes teacher evaluations, classroom observations and student progress monitoring. Feedback is integral to the growth of both teachers and students because it allows for meaningful reflection, decision-making and improvement (Hattie, 2012; Marzano, 2007). Whether it is through formal systems such as RTI, philosophical foundations such as differentiation or ongoing monitoring and evaluation of instruction, systems-wide structures for curriculum management are important tools for ensuring optimal learning for every student.

Case Example

Mrs. Coravel's third-grade language arts class is learning about adjectives. Although students in the class have varied background knowledge, reading skills and experience in speaking English, Mrs. Coravel plans a lesson with objectives that every student can meet. This includes an explanation of the function of adjectives and to use adjectives to evoke strong images.

Based on pre-assessment data, Mrs. Coravel knows that some of her students are already comfortable identifying, describing and applying adjectives in their own writing, whilst others are ready to learn and apply these skills and still others are unfamiliar with word types and have difficulty reading grade-level text. When students arrive, they find a sticker on their folder indicating if they will complete the task in the orange, blue or purple bins. Students in the orange group read a poem that uses adjectives to evoke vivid imagery; they then choose to work alone or in pairs to create an original poem that demonstrates similar use of adjectives. Students in the blue

group work with partners to read the same poem and then follow a structured graphic organiser to write a new poem with at least five vivid adjectives. Mrs. Coravel meets with students in the purple group to read the poem aloud. As she reads, they work together to highlight the adjectives and have a group discussion about the meanings of *adjective*, *vivid* and *imagery*. Using a word bank of adjectives that includes some of the student's current sight words (e.g. *tall*, *green*, *big*, *pretty*), the students in the purple group create an acrostic poem pairing a different adjective to each letter in their names (e.g. Ethan: energetic, tall, happy, athletic, nice). As part of ongoing Tier 2 supports, Mrs. Coravel takes a minute to note on a data sheet which of the students are able to read their sight words during this lesson.

Near the end of the lesson, Mrs. Coravel brings the students together to share their poems. Students are strategically paired up to make a list of the adjectives they hear whilst their peers read their poems aloud. As they leave class, students give Mrs. Coravel their adjectives lists and, as a 'ticket to leave', students are required to share one adjective to describe the class guinea pig, Zoe. After the students leave, Mrs. Coravel uses her notes and the students' poems to reflect, revise and regroup for the next day's follow-up lesson on adjectives.

Conclusion

School-wide systems that support student learning have been shown to improve behaviour and academic achievement among all students. Universal strategies such as providing SEL programmes, screening students for behavioural risk and providing curriculum differentiation can be implemented across diverse student groups and school settings. The aforementioned programmes, services and strategies are designed to provide a population-based framework for service delivery by considering how school psychologists can serve as systems-change agents in providing effective and efficient services. School psychologists can work in tandem with school leaders and educators to create strategies that support positive student behavioural functioning and academic success. By utilising their unique psychological and educational expertise, school psychologists are able to engage in collaborative decision-making with schools to support the implementation of effective multi-tiered educational processes, strategies and programmes that enhance the engagement, well-being and learning for all students.

Test Yourself Quiz

1. How can school psychologists apply a scientist-practitioner approach to systems and school-wide interventions?
2. What are the eight practical steps for applying change management approaches in educational settings as identified by Kotter (2002)?
3. How can existing educational data be used to evaluate the impact of systems and school-wide interventions delivered by school psychologists?

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Group-Based Approaches to School Psychology

Lyn O'Grady and Kristene Doyle

Introduction

Psychologists working in schools can easily face competing demands to best meet the diverse needs of clients, manage expectations of school staff, students, and families, using evidence based approaches in their work and managing their time and resources most effectively. As their role is limited and constrained by funding and school systems, they need to manage all of this within the time and resources available (Bore, Hendricks, & Womack, 2013; Faulkner, 2007). Group-based approaches with students, staff, and parents may provide an effective way to manage these demands to complement other, more individualized, ways of working.

Schools provide a rich social environment in which groups form naturally throughout the school day. Group-based approaches used by school psychologists can therefore fit well within this structure as well as enable new and different social connections to be made. Social skills can be developed within the safe group setting, which may then be transferred to the rest of the school environment (Zins, Weissberg, Walberg, & Wang, 2004).

Evidence now suggests that groups can be effective ways to work in schools with considerable benefits that can be found when individuals participate in groups (a summary of reviews of the effectiveness of school-based psychotherapy will be discussed later in the chapter). Some of these benefits are a result of the group work experience and could not be achieved during individual forms of treatment or support. Groups can enhance learning through shared experiences, gaining a sense of belonging and practising the skills within a safe, contained space with adults who are available to provide support (Faulkner & Wood, 2014). Group work may be also used in conjunction with other forms of treatment or support, such as accompanying or following individual counseling and universal or classroom based social and emotional programs (e.g., multitiered approaches to school-based interventions for students with disabilities described by Wiley & Siperstein, 2015).

Schools are often targeted as venues to support students and families in mental health promotion and prevention activities as well as in early intervention and treatment (Graetz et al., 2008). In Australia, for example, a national mental health initiative for primary schools, KidsMatter, has been developed which provides an evidence-based framework to support schools, families and health and community professionals

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to work together to promote positive mental health of students, prevent mental health difficulties, and intervene early if signs of mental health difficulties arise. In schools implementing KidsMatter, groups might be used across this entire spectrum of mental health promotion, prevention, early intervention, and treatment. These groups can be held with classroom groups as part of social and emotional learning for all students or with small groups of students who require a more targeted approach with a particular intervention. Groups may also be held with parents or school staff to extend their knowledge and understanding as well as developing a sense of community and belonging within the school setting. The initiative also provides an extensive Programs Guide of reviews of over 100 programs available for use in schools with staff, students, and parents. In particular, Component 4 programs target children and young people who are experiencing mental health difficulties (Graetz et al., 2008). A similar program utilizing the KidsMatter framework operates in secondary schools, MindMatters.

This chapter explores how group work may fit into the current mental health agenda within Australian schools, the evidence supporting their use, as well as practical strategies and case studies to support the reader in planning and facilitating groups within a school setting. The strengths and limitations of group work are also explored to assist the school psychologist in making decisions about whether group work may be the most appropriate approach.

Social and Emotional Development of Children and Young People

Children and young people's social and emotional development is influenced by their various developmental and ecological contexts, the most significant being home, school, and community (Bronfenbrenner, 1977; Zins, Bloodworth, Weissberg, & Walberg, 2004). The relationships which develop within these contexts with parents and carers, teachers, peers, and other community members are most important for the development of social and emotional competency during childhood and adolescence (Denham, 2007; Halberstadt, Denham, & Dunsmore, 2001). This was recognized in a prominent 2010 research report developed for the Australian Research Alliance for Children and Youth (ARACY) and the Australian Institute of Health and Welfare. This report titled "Conceptualisation of social and emotional well-being for children and young people, and policy implications" aimed to address two key questions:

1. What is social and emotional well-being for children and young people and how can indicators be developed? and
2. What are the policy and practice implications of analyzing and reporting on indicators of social and emotional well-being?

The authors concluded that the measurement of social and emotional well-being presents challenges for policymakers and researchers as, unlike other phenomena such as educational development, economic well-being, health and physical well-being which are quite well-defined, there is no widely approved single indicator or set of indicators relating to social and emotional aspects of human well-being in general and children and young people's development in particular. Despite this lack of an agreed indicator, there was considerable policy support for approaches to support the well-being of the whole child, such as the 2008 Melbourne Declaration on Educational Goals for Young Australians (Ministerial Council on Education, Training and Youth Affairs, 2008) which recognized that children and young people should be successful learners, confident and creative individuals, and active and informed citizens. Although the Declaration did not include specific details about interventions such as group counseling, it did state that schools should "promote personalized learning that aims to fulfil the diverse capabilities of each young Australian" (2008, p. 7). This has since translated into approaches to curriculum through the Australian Curriculum, Assessment and Reporting Authority (ACARA) which has identified "personal and social capability" as general capabilities which "encompasses students' personal/emotional and

social/relational dispositions, intelligences, sensibilities and learning. It develops effective life skills for students, including understanding and handling themselves, their relationships, learning and work" (2013, p. 2). The Authority notes that these skills are often called social and emotional learning. These skills, the Authority suggests, "lead to greater overall personal and social capacity, and also enhances their skills in the other elements. In particular, the more students learn about their own emotions, values, strengths and capacities, the more they are able to manage their own emotions and behaviors, and to understand others and establish and maintain positive relationships" (2013, p. 2). These skills should be incorporated into the curriculum across all learning areas and at every stage of schooling, whereby teachers plan for the teaching of targeted skills tailored to the specific learning needs of students. The Authority (2013) notes the relatively recent emphasis on the ability of individuals, including those with disabilities, to develop and improve personal and social capability. The CASEL framework (Collaborative for Academic, Social and Emotional Learning, 2012), incorporating the four elements of self-awareness, self-management, social awareness and social management, is noted as a well-recognized model. The development of social and emotional competencies through universal approaches is addressed in Chap. 25. This chapter will focus on group therapy approaches for those students requiring more intensive support.

Personalized learning approaches, including adaptations to the curriculum, instruction and environment are identified as crucial to ensure equity of access to the Australian Curriculum for all students. Group counseling approaches could be incorporated into Personalized Learning Plans or Individualized Education Plans as a way to support students who may require additional support. Peer assistance through buddy systems, peer-assisted learning and peer tutoring is named by ACARA (2013) as one such example of personalized learning using the environment.

ARACY (2010) also noted that there have been a number of approaches to social and emotional well-being, some of which focus on philosophical approaches to the "good life," the privileging of child development, particularly taking an ecological approach to understanding childhood, or problem focused approaches relating to mental illness and poor self-esteem. They note the advent of positive psychology in prioritizing personal strengths and enhancement of quality of life, rather than focusing on problem saturated approaches. They noted the following principles as paramount:

(a) Any indicators of social and emotional well-being have to aim first, towards positivity, towards "the good life";
(b) They should also aim, as far as possible, towards universality;
(c) They should be interpreted in the context of the whole person; they should be seen as having relevance in the wider context of the person's physical, social, and material environment, and in the context of the person as a reflexive and critical agent.

For children and young people, this also means that they need to be involved in defining what "the good life" in general, and social and emotional well-being in particular, mean for them, and how they would measure them" (ARACY, 2010, p. ix). It is within this context that group work may be incorporated into the school day and school psychologists may play an active role in supporting school staff through the identification of appropriate programs for use by teachers and in developing processes for identifying and supporting those students with particular needs in relation to their mental health. For example, those students experiencing anxiety may be supported by classroom teachers through universal approaches to coping with anxiety but may also be supported by a school psychologist who works with a group of children who are experiencing more significant anxiety difficulties. The most effective approaches to working with children with anxiety would include whole school approaches which support students to feel confident and supported as well as more intensive counseling or group work with the school psychologist, if required.

Groups in the Lives of Children and Young People

When planning group counseling interventions, it is useful to consider the role of groups in the lives of children and young people. It is well recognized that interacting with peers in groups is a key aspect of child and adolescent development and success at school (Elliott, Frey, & Davies, 2015). Children and young people can be attracted to peers as a way of sharing interests and forming their own identity. Through being part of a group they are able to learn more about themselves as well as enhance their understanding of the world around them and their own place within it. "Peer group dynamics are about how peer groups work and documenting children's spontaneous notions about how to form a group, who stays in the group, and establishing, supporting, and, at times, rejecting group norms" (Killen & Rutland, 2013, p. 118). It is through this observation that issues like inclusion and exclusion in children's groups can be better understood. Killen and Rutland (2013) identify three aspects of group dynamics that children weigh when considering decisions about inclusion and exclusion:

(a) How much do I identify with my group? (e.g., gender, race, ethnicity, culture).
(b) What are the norms of my group that I support or reject?
(c) How do I categorize my group-specific norms with respect to different domains, such as the moral (fairness and justice) and conventional (conventions, customs, and traditions)?

Group therapy approaches build upon the interest children and young people have in fitting in with peers and engaging with others socially. Belonging to a group can bring both positive and negative roles in children's lives. Groups can provide children with a sense of community and support. Participation in structured teams such as sporting clubs can foster children's social, emotional, and cognitive development. Conversely, groups can create extreme in-group and out-group divisions which may lead to violence and aggression, such as when gangs form and members participate in antisocial behaviors (Killen & Rutland, 2013). This highlights the complex nature of group participation and the role that factors such as culture and gender play in children's engagement with groups as well as more simple notions such as shared interests or activities which also play a role when children are making decisions about which groups to belong to. Often these decisions, and the decision making process, are not well articulated and tend to be implicit. The implications of such decisions are serious and require further research to understand how they can lead to prejudice, stereotyping, and racism even in young children. Group counseling approaches can provide an opportunity for children and young people to explore their understandings of each other, gain insight into behaviors of themselves and others, and provide an opportunity to practise new skills with the support of the facilitator/s. This can be particularly relevant to those students who are experiencing challenges in socializing with peers, have been involved in bullying or are showing signs of mental health difficulties such as anxiety.

The authors suggest that care needs to be taken when establishing environments in which groups develop as the facilitator of the group will need to be aware of and prepared to manage the group process:

> "[c]reating a developmentally appropriate program is more complex than simplifying the content [from adult programs], however, because it requires in-depth knowledge of recent developmental findings regarding children's reasoning about social exclusion, moral development, understanding of prejudice, and sense of group identity" (2013, p. 155)

This will be particularly crucial when developing group counseling approaches where it is crucial that a safe and respectful environment develops to enable children and young people to confront concerns and take the necessary risks required to develop new skills and ways of behaving.

A number of major theories of development can provide support in explaining exclusion and inclusion in childhood. These theories describe

how children learn to get along with each other, when and why they reject others and how they navigate finding their place as social members of communities. It is within this context that group counseling approaches will be successful and the group facilitator will benefit from understanding both the relevance of the content of the group and the process of the group dynamic between participants in ensuring treatment goals are accomplished for all participants. Group counseling approaches can provide a structured and facilitated approach to support students who may be experiencing social isolation or exclusion, particularly if they have social concerns or behavioral issues.

Role of Group Counseling in Responding to Student Mental Health Difficulties within a School Setting

As stated previously, the development of children and young people's social and emotional skills will occur within the context of their most significant social environments: family, community and school. Group counseling approaches to support students experiencing difficulties can build on those social context within schools. Increasingly, however, social media and technology is also playing a role in children's lives and cannot be ignored when considering the context in which development occurs (Campbell & Robards, 2013). As children learn from the modelling which occurs from adults and their peers, the social context provides a rich environment in which interventions can be developed to support them. Children develop at different rates and will benefit from opportunities to learn and practise their skills initially in a structured classroom environment. Students who are experiencing difficulties with their social and emotional development will require more than the universal programs offered within the school setting. They may also require support for skills learned in structured environments to be transferred to the range of less structured environments in which children participate (such as the school yard, neighborhood playground, bus lines, during excursions in the community). Sometimes children will struggle most at those times when structures are not clearly defined or when adults are not available to provide support. Recognition of cooperative learning in schools (Johnson & Johnson, 2003) means that there are many opportunities throughout the school day for the explicit teaching and practice of skills. Cooperative learning occurs when group activities can form the basis of learning activities and children are expected to work together cooperatively. Group counseling can draw upon and assist in developing skills in cooperative learning. Cooperative learning skills include listening to others, taking others' points of view and needs into account, negotiating with others, and using problem solving skills. The shift to a focus on working cooperatively occurred in education several decades ago as it was recognized that adult work environments required skills of cooperation and the capacity to work and problem solve with others more than the older style factory-based skill sets.

While many children and young people can cope well with cooperative learning situations, some will benefit from differentiated support. In keeping with the need for teachers to ensure that the curriculum is applicable to every student across all educational settings and contexts, tailored approaches which group work offers may be required (ACARA, 2013). Students, for example, may require a higher amount of explicit teaching, structured feedback about ways to improve their skills and many opportunities to test out their skills as they continue to develop them. The classroom environment alone may not be able to provide this kind of extensive support, although efforts can certainly be made by teachers when they have realistic expectations about the student's progress. They can assist the student by scaffolding tasks, providing additional support and explanations, encouraging the student to try new ways of behaving and ensuring other students provide support and encouragement. When these classroom efforts are insufficient, clear processes within schools can enable a referral to be made to enable the student to access more specialized support, including from the school psychologist.

When students are identified with a mental health difficulty, such as anxiety or depression, group counseling approaches facilitated by a psychologist can be most beneficial to accompany efforts in the classroom. The authors have found that this work is enhanced when the psychologist is in a position to also provide support and guidance to the students' family and school staff to ensure that the student is receiving consistent support, expectations are managed and opportunities for sustainability are enhanced.

Evidence for Group Based Approaches in Schools

The efficacy of school-based therapy with children and adolescents has been explored by several authors. Whiston and Sexton (1998) examined the outcomes of both individual and group-based school counseling treatment approaches. The authors found that group therapy was effective in addressing concerns of social skills deficits, family adjustment issues, and discipline problems with elementary school-aged children. Whiston and Quinby (2009) concluded that group counseling interventions in the school environment are effective with younger children, but, further research on group counseling interventions is needed. Prout and Prout (1998) have suggested that group-based interventions in the schools are effective at addressing the mental health needs of children and adolescents.

Matta (2014) also assessed the efficacy of school-based therapy in a meta-analytic review. The author found that overall school based group treatment was moderately effective and showed significantly greater improvements, as compared to control, and/or alternative, treatment conditions. In addition, group treatment approaches were found to be just as effective as individual treatments, if not more so. The author concluded that group interventions therefore appear to be a viable option for those addressing the mental health needs of children and adolescents within the school environment. Although it was recognized that there is a lack of current research comparing group and alternative treatments, groups in school settings provide an effective alternative to individual approaches.

Matta's research explored the relationship between group treatment efficacy and a number of variables associated with the therapists, clients, treatment, and methodology of each study, as well as how the levels of these variables are differentially associated with the efficacy of group therapy with children and adolescents in the school setting (Matta, 2014). Matta reports that research has found that group treatments conducted within clinical settings are significantly more effective than group treatments conducted within schools. She suggests that this may be due to time constraints and the necessity of shorter treatment sessions resulting in a lack of fidelity and treatment efficacy. This is consistent with the focus of CASEL and researchers such as Durlak, Weissberg, Dymnicki, Taylor, and Schellinger (2011) who highlight the relationship between the design and implementation of programs and successful outcomes.

Matta (2014) reports that although reviews of treatment approaches and interventions conducted within the school environment have produced varying results, some analyses have revealed group therapy was effective in addressing concerns of social skills deficits, family adjustment issues, and discipline problems with elementary school-aged children, although no quantitative data was reported. Studies comparing group and individual interventions in school settings and clinical settings, reported by Matta (2014), suggest no differences between the two settings, nor between the types of intervention. The meta-analysis aimed to assist psychologists and other professionals working in schools to become better informed about factors such as length of time and type of interventions, given the conflicting previous research (Matta, 2014). The 98 studies included in her meta-analysis found positive support for school-based group treatment approaches in addressing the mental health needs of children and adolescents. She found that school-based group treatments were found to be significantly more effective than the individual school-based treatments, consistently across age of participant, presenting problem,

and the group treatment modality used, although she suggests caution due to only one study which looked at all aspects.

Neither the length of treatment nor the delivery size of the treatment group was found to be significantly related to treatment outcomes. Interventions lasting from three sessions to more than 20 were found to be similarly effective. This differed from previous research where higher group and/or child treatment efficacy was found to be related to longer treatments. This finding suggests that school-based treatment can fit within the constraints of school timeframes and still produce desired outcomes. The size of the group did not produce different outcomes, with small treatment groups of five or fewer individuals and larger treatment groups consisting of more than five individuals were found to be equally effective. This suggests that group treatment need not necessarily be delivered in small groups, although she cautions that the needs of group participants need to be considered to ensure adequate resourcing during the intervention. For example, some participants may find it difficult to participate in a group that is larger than five participants and the psychologist may find it difficult to pay sufficient attention to participants if they are facilitating the group without a co-facilitator. This will be of relevance to school psychologists who will need to manage needs and expectations of the school with the particular needs of the group participants in terms of resources such as time and staffing.

No significant differences were found in relation to participant age and presenting problem(s), suggesting that school-based group therapy appears to be equally effective in meeting the mental health needs of children and adolescents of all ages, with a wide variety of presenting mental health problems. Psychologists can therefore feel confident in suggesting counseling groups as appropriate evidence-based responses to a range of mental health difficulties.

Of particular relevance to school psychologists (and schools when considering what options are available for supporting students with mental health difficulties), there was no significant relationship found between the type of professional who administered the school-based group treatment intervention and the treatment outcome. Matta (2014) noted the few school-based studies which reported the use of school psychologists in administering the group interventions (1.7%). Social workers were identified most frequently and 12% of studies reported the use of school counselors which may include the role of the school psychologist. 31.1% of studies reported graduate students as administrators of programs and 23.1% did not report the profession. This raises questions about the role of school psychologists in group therapy interventions, particularly in relation to expectations of school leadership (e.g., a focus on cognitive assessments for funding purposes), aspects of the school organization (such as available space and willingness to support the practicalities of running groups) and/or the psychologists' expectations of their role (including training and confidence in running group therapy interventions within a school setting). It may mean that the school is able to utilize the psychologist's expertise in planning and supporting appropriately trained school staff to facilitate group programs to improve accessibility. It could also be argued that given the few studies relating to psychologists running groups, it is not possible to fully determine whether a psychologist facilitating a group might make a difference to the treatment outcome.

Therapeutic and/or counseling approaches were found to be more effective than psychoeducational approaches and some support for the efficacy of behavioral/cognitive-behavioral approaches had previously been found, although Matta (2014) reported no significant difference between cognitive-behavioral therapy and other modalities. The expertise of the psychologist in determining the most appropriate treatment approach for the group is likely to be instrumental in determining effectiveness.

A meta-analysis of 213 evaluation studies of universal social and emotional learning in schools (Durlak et al., 2011) found that social and emotional learning programs

> "yielded significant positive effects on targeted social-emotional competencies and attitudes about self, others, and school. They also enhanced

> students' behavioral adjustment in the form of increased prosocial behaviors and reduced conduct and internalizing problems, and improved academic performance on achievement tests and grades" (Durlak et al., 2011, p. 486).

It should also be noted that the meta-analysis found that classroom teachers and other school staff effectively conducted social and emotional learning programs. The authors suggest that these programs can be incorporated into routine educational practices. They do not explore the role that psychologists may play in assisting schools to implement programs, however, they do argue that beneficial programs must be both well-designed and well-conducted. Psychologists may play an active role in supporting schools with the design or choice of programs and training and planning support in implementation to ensure the best outcomes are achieved, particularly if teachers are interested in running groups for students with particular needs related to mental health difficulties when early signs or concerns are noted. As the programs included in the meta-analysis only included universal programs, it could be suggested that psychologists and other mental health professionals play a more integral role in working with groups of students requiring more targeted or intensive interventions.

The value of utilizing the expertise of mental health professionals as facilitators of groups has been recognized by the BRiTA (Building Resilience in Transcultural Australians) Futures Program (State of Queensland, 2010), who prioritize the training and assessment of potential facilitators, noting that a mental health worker may

> "be beneficial due to the sensitive nature of some of the activities and issues discussed and the vulnerability of participants. Throughout the program, it is also important that facilitators assess the level of trust and rapport that the group has developed, and the appropriateness of each activity for all the members in the group. For example, for some newly arrived children with a recent refugee background, or those who have recently experienced a significant loss or trauma, some activities may be too confronting" (2010, p. 19).

For students who are considered to be at risk of mental health difficulties, media such as music or other arts can assist in addressing mental health and social well-being issues in a nonclinical or therapy setting such as a school. The DRUMBEAT Program uses drumming as a way to engage participants over a 10 week period. It provides a safe and supportive environment for the development of social and emotional competencies, such as listening, problem solving, sharing and acceptance of diversity. The group process itself can facilitate the development of social competencies with reciprocal interaction, leadership, sharing and turn taking. An evaluation undertaken in 19 schools (ten primary, five secondary, and four Intensive English Centers), involving 180 students, who participated in the Program, included school based data on student behavior and teacher feedback and found positive changes observed on several measures, including a 10% increase in self-esteem scores by program completion. School data showed a decrease in reported behavior incidents for 29% of participants (Wood, Ivery, Donovan, & Lambin, 2013). Teachers reported that students benefited from "the sheer enjoyment of drumming, the drumming skills learned, the feeling of being involved in and successfully achieving a group task, and the resulting self-esteem enhancement" (2013, p. 77). School psychologists may be able to draw upon the way in which this program has engaged students in a group therapy approach when considering their own ways of working with students in groups, particularly when working with students who tend not to engage in more traditional forms of learning.

Advantages and Strengths of Group Work

It is clear from the above literature that group work can provide a range of advantages to complement individual sessions or to be utilized instead of sessions at an individual level. Group work can reduce isolation through students supporting each other. Yalom's Therapeutic Factors, defined as "the actual mechanisms of effecting change in the patient" are evidenced in group therapy formats (Yalom, 1995). For example, his Universality concept is one therapeutic factor

that can be very beneficial for group members. Children and adolescents, through their participation in group therapy, come to learn that the problems they are experiencing are not unique to them, but rather, are shared by others in their peer group. Trust is more likely to develop when students spend time working together in small groups under the supervision of a facilitator, particularly if the facilitator is a school psychologist who has a reputation within the school as trustworthy. Students can be heard more easily and actively engage more in discussions and problem solving in small groups compared to a larger classroom environment.

An important aspect of learning is receiving feedback and support when new skills are developing. The group counseling environment can provide feedback opportunities during the sessions from peers, not just from the psychologist alone as would be the case during individual sessions. Groups also provide the opportunity for students to provide feedback to each other in a supportive environment overseen by the psychologist, who can model and facilitate respectful and useful ways to offer constructive feedback to others. Yalom's therapeutic factors of instillation of hope, altruism, and interpersonal learning are all mechanisms to facilitate change in young group members. Furthermore, Dr. Albert Ellis believed that group therapy often was more efficient than individual therapy (Ellis, 1997). For example, when children and adolescents have the opportunity to provide constructive feedback such as helping their group members identify their distorted thinking and/or maladaptive behaviors, Ellis suggested that such group members were also helping *themselves* when giving such feedback.

Groups can promote learning through social modelling, from both peers and the facilitator (Rose, 1999). The authors when facilitating groups have been aware of the role of the psychologist to actively model behaviors and encourage positive social skills in the group setting which is closer to a real world experience for the student than an individual therapy session. Multiple learning opportunities can also occur beyond the initial intention of the group as it contrasts with other aspects of the schooling experience because of the small numbers compared to a classroom or year level and the particular area of focus on social and emotional skills the group is targeting.

The group provides a safe environment for students to test out new behaviors, such as friendship and assertiveness skills. For students experiencing symptoms associated with anxiety they can learn new ways to cope with anxiety-provoking situations and practise skills such as presenting to the group. This will be particularly important for students who have developed a reputation for behaving inappropriately. The group may provide these students with a supportive and affirming environment to test out new ways of being. The psychologist also has the opportunity to observe the client in a group setting which can provide more information about the client's interpersonal skills and style than would be observed in therapy sessions or through student self-reports. The psychologist can also use the observed behaviors which occur in the group to follow up during individual follow-up discussions about any discrepancies between what the client says and does (Terjesen & Esposito, 2006). An additional advantage of group therapy is the ability for members to receive *immediate, corrective* feedback of problematic expression of emotions and behaviors from other group members as well as the group leader(s).

Disadvantages, Limitations and Concerns Related to Group Work

There will be times when group work is not the most appropriate intervention due to its limitations and the lack of interest or willingness of students to participate. The authors also have found that there may be times when the students' needs can be better met in an individual session (e.g., when personal information is shared or the student is experiencing social anxiety which is likely to be exacerbated by participation in a group).

Psychologists will be most interested in spending their time as efficiently as possible so careful consideration needs to be taken to ensure

that the group work is the best format to meet the students' needs. Time spent preparing for and facilitating groups reduces the time available for other work and time within the group needs to be shared across all students. The authors' experience is that the time-pressed school psychologist will need to determine whether the expected benefits of the group are likely to outweigh the benefits that may come from individual sessions.

Group formats may intimidate some students, particularly those who might benefit greatly from the group therapy experience (e.g., children experiencing significant anxiety). In such cases individual sessions may be most beneficial initially to provide the student with a tailored approach which aims to reduce the anxiety. Over time, a gradual introduction to a group setting with other students with similar concerns may be considered as the student becomes more confident.

Confidentiality of shared information cannot be guaranteed in the same way as it can in individual sessions as it relies upon the group participants to agree to confidentiality. This may be a particular concern for some students who may prefer an individual counseling setting in order to feel comfortable sharing emotions and experiences. If students report that information has been shared out of the group, the facilitator may choose to discuss the situation within the group setting, including reminders of the rules and discussion of the potential impact of such sharing, or it may be more appropriate to raise the concern with the involved participant/s privately. Of course limitations of confidentiality still apply if safety concerns are raised and this should be explained to all group participants at the start of the group sessions and reiterated as necessary. It may be helpful to have the agreed rules and expectations written and readily available (such as posted on the wall) for easy reference during discussions. The initial discussion about rules and expectations may include a discussion about what will happen if rules are violated. Gaining a shared understanding at the outset can be useful as part of encouraging a safe group environment with clear expectations. Much of the learning within a therapeutic group setting requires students to discuss thoughts and feelings and share experiences, so students who are feeling uncertain about sharing their information with others may find it difficult to participate fully. There may also be some students whose information is best shared within an individual session with the psychologist and would not benefit as much from a group if they were not able to share their experiences with others. It is the authors' experience that groups tend to work best when participants have similar needs to each other and can gain from sharing their thoughts and feelings. This enables the group participants to gain a sense of support and belonging, to feel understood more readily and also to be able to work on similar issues.

The importance of a thorough group screening cannot be overemphasized. While we recognize that in certain settings such as schools, group screenings may not be realistic, it is highly recommended for a group leader to conduct a screening of potential group members when possible (Corey, Corey, Callanan, & Russell, 1992). The purpose of a group screening is to assess the "goodness of fit" between the group and the potential group member. The question group leaders should be considering is whether the goals of the group are compatible with the goals of the interested member. The motivation of the potential member should also be addressed. It is important to recognize that many children and adolescents are not necessarily motivated to change, nor are many of them motivated to participate in group therapy. Addressing how the group may benefit the potential member can be accomplished during the group screening. While motivation certainly assists the group therapy process, the group can address the lack of motivation in some members, largely by exploring the negative consequences of the presenting maladaptive behaviors and/or unhelpful emotions being displayed. It is also important to allow potential members the opportunity to ask questions of the group leader. This instills confidence in the leader as well as the therapy process. It also encourages the potential member to be an informed consumer. It also conveys the message that the leader is interested in what the child or young person thinks.

Some group participants can dominate the group by talking, interrupting or focusing on themselves without showing interest in the other participants. In such a case it could be that the student's readiness for a group might need to be considered and it may be that a decision is required to prioritize the needs of the group and arrange an alternative treatment approach for the student, such as individual counseling. Although it can be difficult to determine the student's readiness for the group until they are actually participating and the facilitator is able to observe them, there can be ways the psychologist can gain a sense of their readiness. This can include asking the student about their needs, explaining the way the group operates and asking for their view about participating and what benefits they may gain. The psychologist may also consult the student's teacher or parents or carers to gain further information to help determine readiness. An observation of the student in the classroom and at other places around the school may also prove useful, particularly in relation to observing peer interactions, attention span and engagement with a range of tasks. As suggested by Terjesen and Esposito (2006), there is also a place for the use of structured assessment tools such as the Child Behavior Checklist.

In the event that it appears that a student may benefit from an intervention other than the therapy group, this decision would be best made after other avenues to support the student to participate in the group have been made, including one to one discussions with the facilitator, support within the group, structured activities which build on strengths of the participant and redirection or clear structure for the group. Although group rules and the role of the facilitator in interrupting and using tools such as "talking sticks" (e.g., a toy or other object held by the person who has the right to speak with the expectation that others listen) can assist with this, the needs of the student should also be balanced with the needs and interests of the other group participants. However, if there are group members who are demonstrating compulsive talking or interrupting, the group leader can use this as an opportunity to explore what thoughts and/or emotions are underlying this particular therapy-interfering behavior. While compulsive talkers and interrupters can be distracting to the therapeutic process, they can serve as a learning experience for the entire group if addressed adequately. The main caution with this type of group member is avoiding having their problematic behavior overtake the group.

Another consideration when deciding upon a group work intervention is the risk of suggestibility of some group participants which may be detrimental if there is the possibility of inappropriate behaviors being shared and transferred to other group participants (Terjesen & Esposito, 2006). Within a therapy group focused on anger management, for example, there is a risk that participants may learn inappropriate behaviors from other participants or messages condoning inappropriate expressions of anger may be shared. The facilitator needs to carefully establish ground rules, monitor participants' behavior and comments closely and ensure that strong antiviolence messages are promoted. The facilitator's own modelling of effective communication and challenging of students' attitudes and behaviors will be important in this situation.

Types of Groups a School Psychologist May Facilitate

In our experience, there are three main counseling groups that are often held in Australian school settings:

1. Groups to encourage personal growth. These groups can be focused on transitions that occur and difficulties students may have with study habits, goal setting and coping with the demands of school.
2. Groups to improve school climate and the student's ability to cope with the school environment. These groups may focus on particular issues such as bullying behaviors, improving student morale and improving cultural understandings.
3. Reformative groups. These groups are established to assist students in learning to cope with

personal problems, including identity, family problems, anger management and other issues students face in growing up. This group could include students experiencing mental health difficulties such as anxiety, ADHD, Autism Spectrum Disorder or depression.

A multitiered model which takes into account the spectrum of interventions from prevention through to longer term treatment has been explored by Herbstrith and Tobin (2014) as follows:

- Tier 1: Prevention-focused to large groups. These groups could include classroom groups, multi-aged groups. Participants in these groups may not be referred to the psychologist but the psychologist may work in collaboration with teaching staff to develop or facilitate programs.
- Tier 2: Students at higher risk than the general population to developing problems but intervention is considered still to be within the early stages. These groups could include psycho-educational groups aiming to reduce identified risk factors and increase protective factors for mental health and well-being. Social skills groups could be included here for students experiencing difficulties with friendships and behavior. These groups could also be available during particular life crises, such as following death, divorce or illness to reduce the risk of adjustment problems. Psychologists may support school staff with some of these groups rather than facilitate them all.
- Tier 3: Most intensive groups for those students with the greatest needs. These groups would support students experiencing signs of mental health problems, such as anxiety and depression. Students would be identified by school referral pathways and would require parental permission to participate in these groups to be facilitated by the psychologist or other mental health professional.

Skill building groups such as Australian Bounceback and You Can Do it—Program Achieve programs, are structured interventions which aim to improve social and emotional skills in children and young people (Tier 1 programs). Ideally a whole school approach to the programs will enable shared understandings and consistent language to be utilized across the school. There is now considerable research outlining the importance of finding programs which fit the school's mission, values, goals, and curriculum as well as the cultural expectations of the school community (Forman & Barakat, 2011). In our experience, when schools have whole school approaches to social and emotional learning, the psychologist will be able to work more effectively to build upon that learning to support students experiencing mental health difficulties through counseling groups. These students may have been found by school staff to require more support than can be provided within classroom programming (Tier 2 and 3 programs).

Student Participation Through Self-Referral or Mandatory Attendance

Although students are likely to engage in a group better if they are able to self-refer or are provided with a choice to attend, it is common in our experience for school staff and/or parents to request that a student attends a group and for a referral to be made to the psychologist. The psychologist may establish a process of meeting with students prior to the commencement of the group to explain the purpose of the group, provide an overview of a typical session and provide an opportunity for the student to ask any questions or raise concerns. For some students there may be a stigma associated with attending a group and it can be useful for the psychologist to explore this with the student, parent, and school staff with a view to promoting confidentiality and reducing stigma where possible. For older students in particular this discussion is necessary in order to obtained informed consent and to promote active engagement in attending the group. The psychologist will need to consider what options may be available to students who are unwilling to attend a group, including working with parents and staff, individual counseling or even gaining an

agreement to attend the first session before deciding whether to continue or not. The psychologist will need to balance the benefits and risks to the student and other group participants if a student is mandated to attend a group.

The Role of Technology in Engaging Children and Young People in Group Work

As children and young people engage with technology there is increasing scope for the inclusion of technology in therapeutic interventions and group work and this may assist students in choosing to participate in therapy groups. Online programs and applications can act as coach or therapist and guide the student to look at the problematic situation in a new light. It is useful in both individual counseling contexts as well as in group settings.

More recent research has explored the use of technology to promote young people's well-being. There is now a large and growing body of research about e-health approaches to mental health promotion, prevention, early intervention and treatment, including the place of online groups. E-health approaches and how they may be utilized by psychologists to complement or replace face to face counseling is a topic of debate currently in Australia. Given that many of the e-health approaches are in the early stages of development, there is only emerging evidence to date to suggest whether, and how, these approaches can be used, and their effectiveness, particularly with children and young people. Finding ways for schools and psychologists to fully utilize the opportunities technology offers for young people to complement current approaches will continue to be of interest (Campbell & Robards, 2013).

Research has explored the effectiveness of using computerized programs to support students with mental health difficulties. Stallard, Richardson, Velleman, and Attwood (2011) explored the use of a computerized cognitive behavior therapy program for depression and anxiety with a small group of adolescents aged 11–16 years. Their results suggested that improvements can be made in child mental health through the provision of a supported eCBT intervention whilst on a waiting list for specialist face to face CBT. Quantitative feedback from participants suggested moderate to high satisfaction with the program and had helped them to understand their problems and find new ways to cope with them (Stallard et al., 2011).

According to a Cochrane Review (2013), group CBT to treat anxiety can be delivered in schools, although further research is required to ascertain whether any particular anxiety disorder or clinical variable is associated with a better outcome with certain therapy formats. In addition, exploration of whether CBT can be delivered in a shortened form or through internet delivery is considered worthy of further research. See Chap. 37, for further information about technology.

Groups to Support Children and Young People Affected by Trauma

Counseling groups in schools have also been recognized as useful for supporting children and young people affected by trauma. According to Scheidlinger (2004), groups may take the form of crisis intervention groups as part of a community or school-wide response following natural or human-made disasters or support groups to offer emotional support to students who are facing a common problem or concern, such as family breakdown. These groups are geared to:

(a) Normalize the sense of being a child of divorce or family breakdown.
(b) Clarify the confusing and stressful family issues.
(c) Provide a safe setting to express and deal with conflicted feelings.
(d) Develop appropriate coping strategies.
(e) Share the children's concerns about the parents.

Scheidlinger (2004) notes that not all groups are suitable for school settings but are generally conducted in clinical settings, such as groups for children who have experienced child abuse.

Parenting Groups

Parenting Groups can also be facilitated by psychologists in school settings with successful outcomes for parents through building confidence and efficacy and improving their relationship with their child. Benefits for students have also been identified, including behavioral improvements and reduced risk of drug use and suicide (Toumbourou & Gregg, 2002). Parenting Adolescents: A Creative Experience (PACE) from Australia are groups for parents which have been well evaluated to show effectiveness in supporting parenting. The PACE Group, for parents of early adolescents was designed as a universal intervention, whereby facilitated groups based on an adult learning model utilized a curriculum that included adolescent communication, conflict resolution and adolescent development (Jenkin & Bretherton, 2004). In one study, 7-week PACE groups were delivered by health professionals such as psychologists across Australia to 3000 parents who had adolescents in early high school. The evaluation included longitudinal self-report data from 577 families (parents and adolescents) representing a 60% response for those sampled from 14 schools targeted for intervention and 14 matched control schools. Although only around 10% of parents in the intervention schools were successfully recruited into PACE groups, pre- and post-intervention findings demonstrated benefits extended more broadly across families in the schools in which PACE was offered. At the 12-week follow-up, parents and adolescents reported a reduction in family conflict. Adolescents reported increased maternal care, less delinquency, and less substance use (the odds of transition to alcohol use were halved). Analysis suggested that intervention effects might have extended to young people at high risk of substance use problems. The evaluation demonstrated that the parents recruited into the intervention were more frequently sole parents, and their children reported higher rates of family conflict and multiple substance use. At the posttest, family conflict and youth substance use had reduced markedly in these families. Improvements in troubled family relationships appeared to impact a wide group of families linked through peer-friendship networks (Toumbourou & Gregg, 2002).

Furlong, McGilloway, Bywater, Smith, and Donnelly (2013) suggest that parenting groups which improve parenting skills have been shown to be effective in reducing problematic behaviors in childhood and increase children's social and compliant behaviors, as well as improving mental health. In particular, the authors note the value of group-based parenting interventions in reducing the intensity of childhood conduct problems. These groups have been informed by behavioral, cognitive, and social-learning theory principles (Furlong et al., 2013).

In a school setting, these groups need to be developed in consultation with school staff to explore whether the school is the best place to hold the group or whether parents are best referred to a group in the community or mental health service. Considerations will need to include how confidentiality can be managed, who is best placed to facilitate the group and whether parents will feel comfortable engaging in such a group experience, which is focused on the problems they and their child are having, within a school setting. For further information about parenting groups see Chap. 27.

Considerations When Choosing Group-Based Approaches

The first consideration when establishing a group within the school context relates to the particular needs of clients. If there are sufficient clients who are sufficiently homogenous to form a group with similar presenting issues, a group therapy format may be appropriate. Higher levels of group homogeneity (groups with more similarity in age and presenting mental health issues between group members) were found to have a significant positive relationship with group treatment efficacy (Matta, 2014). This suggests that although individual subject characteristics may not significantly impact treatment outcome, the dynamic of the individuals making up the group is very important. If the group is heterogeneous the psychologist may need to determine ways to plan groups so that students are included to promote homogeneity (which may mean some students are not able to

participate). The psychologist may also reflect upon what the group participants may have in common that may not at first seem obvious (e.g., students may have some interests or shared experiences although presenting behaviors or issues may not appear the same). In the event that the group is found to be heterogeneous the psychologist may structure activities and discussions in ways that promote the building of relationships and seek out what participants may have in common. This may become the priority for the first few sessions.

A necessary consideration for the psychologist is to consider their own skill set to ensure that they are appropriately trained and experienced to facilitate the group. This will include:

- Clarity about the aims of the group and whether the psychologist's skill set and training are appropriate and the group work proposed is in their scope of practice
- Understanding of the stages of development of the participants in order to have realistic expectations of them during the group process
- Awareness of when it may be appropriate to take on a more didactic style and when a more facilitative approach may be appropriate
- Capacity for acceptance of the clients
- Respect for each clients' individual engagement and learning during the group process
- Cultural awareness and sensitivity
- If play based approaches are utilized with younger children, "[t]he therapist must have the ability to empathically participate in the client's act of creation and in so doing develop a deep, wordless rapport… the ability to be present, without intruding, maintain a reassuring interest, is linked with an attitude of discovery or study of the psyche, rather than an attitude of expecting preset outcomes and directing the process to achieve these set goals" (Pearson & Wilson, 2001, p. 34).

Considerations When Facilitating the Group

Some of the other skills and considerations, including ethics, for an effective group facilitator, as identified by Pearson and Wilson (2001) in describing emotional healing through sand play, but which are also relevant to all group leaders, include:

- "Skill in a client-centered approach, which implies trust in the client's inner healing mechanisms and their own readiness to determine issues and timing for emotional healing;
- Attentiveness and a sense of presence, offering empathic involvement that helps the client to feel less isolated;
- A quiet, confident, relaxed manner which supports client in relaxing—this relaxation can enhance self-awareness and emotional healing;
- A readiness to recognize, accept, and find support to deal with their own issues that arise in working with clients;
- Sensitivity to clues offered by the client, e.g., by the client's body posture, voice, or facial expression, and an ability to use these as guides for self-discovery questions and enhancing the client's self-awareness;
- An ability to gently mirror back feelings identified by the client;
- An ability to gently encourage the client to stay with their feelings without pushing or coaching them;
- An ability and readiness to support the release of strong feelings that may be activated during the process;
- A sense of play and readiness to suspend ordinary logic and goal-orientation and enter the child's world if invited;
- The skill to bring closure firmly and gently, even if occasionally some issues remain partly unexplored or unresolved" (Pearson & Wilson, 2001, p. 81).

While psychologists working in schools will be aware of the need to organize space and resources such as materials for their work with clients, there will be particular logistical issues associated with group work within the school which will need to be considered. An appropriate space may be difficult to access within a school setting and will need to be considered early in order to plan for the group. Other logistical issues include timetabling, working around school holidays and excursions, managing communication

with school staff and families to ensure that consent forms are returned prior to the group's commencement and that parents have had an opportunity to hear about the group and have any questions answered.

When planning for group work, it is useful to note that children and adolescent's social and emotional development occurs within a cultural context with specific cultural understandings, perceptions and expectations. Behaviors which are encouraged or discouraged and interpretations associated with behaviors will largely be impacted by cultural understandings. In western cultures, for example, valued qualities might include sociability, independence and assertiveness. These qualities, however, may not be considered universally to be useful or valuable (Rubin, 1998). Misunderstandings can easily occur within school or community settings when this cultural lens has not been taken into account (Rogoff, 2003). Group counseling approaches will need to consider aspects of culture when planning and facilitating the group. For example, when exploring issues related to identity or self-esteem, an awareness of culture and using culturally safe approaches will be crucial in both understanding the needs of the students and developing appropriate responses. When working with students from an Aboriginal and Torres Strait Islander background in Australia, using culturally appropriate materials and drawing on specific cultural understandings of social and emotional well-being for Aboriginal and Torres Strait Islander families is necessary (see Chap. 3 for further information). When facilitating groups, particularly larger groups such as those with six or more students or students with particularly high needs, it may be useful to have a co-facilitator. This may be another psychologist, if available, or a school staff member. This will also require additional planning time and debriefing time before and after each group session. Discussions to clarify the purpose of the group, style of facilitation, expectations of each other and role clarity so that the group can run smoothly all would be beneficial. School staff members can benefit from co-facilitation opportunities as it can assist their understanding of the learning which takes place within the group. In our experience we have found it is important to consider the impact of a staff member in the group for the students. We have seen that there are a number of advantages of co-facilitation including:

- a reduction in group leader burnout (especially with challenging group populations);
- the greater cognitive and observational range increases the number of hypotheses developed about members;
- when intense emotions are expressed by one or several members, one leader can attend to those members while the other leader can observe the reactions of other members;
- if one leader is absent due to sickness or personal matters, the group can still proceed;
- if one leader is strongly affected by a particular group session, his/her feelings can be discussed and processed after the group with the coleader. Coleaders can serve as objective sounding boards for one another;
- coleaders can complement and support one another;
- for new group leaders, the presence of a coleader reduces the initial anxiety about facilitating a group.

Choosing the group content will take time to explore the availability of packaged programs and consideration of any tailoring or adaptations required. The KidsMatter and MindMatters websites in Australia include Programs Guides outlining programs available for schools to implement or make referrals to (see http://www.kidsmatter.edu.au/primary/resources-for-schools/other-resources/programs-guide and http://www.mindmatters.edu.au/tools-resources/programs-guide. Programs outlined in Component 4 (Early intervention for students experiencing mental health issues) focus on groups which target particular mental health difficulties. Sometimes it will be necessary to develop a program based on the psychologist's own experience but there may be resources from programs which may be useful. When choosing a program it will be useful to explore the background of the program, including:

- the theoretical framework and evidence underlying the program,
- the training and experience of the author/s,
- any evaluations which have been undertaken,
- likely effectiveness of the program for the client group (which could be based on an evaluation report, evidence associated with the theoretical framework or based on previous experiences of the facilitator or other colleagues)
- the cost of the program,
- how well it caters for the needs of your intended participants,
- its fit with the school context and its ability to be adapted to take into account the particular needs of the school community,
- the level of preparation required for each session and ease of use of manuals,
- whether it has accompanying sessions for parents and school staff, and
- whether the facilitator needs to participate in formal training prior to accessing materials.

Considering the activities to be undertaken in the group will depend upon the needs of the participants as well as their age, capacity and treatment goals for the group. Care will need to be taken in using activities such as role plays. Role plays can provide an opportunity for group participants to take on the role of others, with a view to improving their understanding of others from their perspective. These take considerable set up to enable the student to take on the role or perspective of another, as well as careful debriefing so that students adequately de-role and are supported in processing the information with links back to the intended learning. Killen and Rutland (2013) warn that despite role playing being extensively used by educators not only is there little empirical research that has been undertaken into its use but the little evidence that does exist suggests that this activity does not significantly change children's empathy or the attitudes that may underlie social exclusion. Instead the authors suggest interventions which enhance cross-group interactions which are supported by research to reduce children's prejudice, bring about friendships and encourage positive contact between children from different groups. This includes interventions which focus on the need to encourage moral reasoning, reduce prejudice and challenge exclusive group identities and norms.

Developing group rules together as a group is an important priority for the first session of the group. This sets the norms for the group to ensure that group participants are aware of expectations within the group and so that all participants can feel physically and emotionally safe and secure within the boundaries of the group. Clear group rules will also enable the psychologist to draw upon the agreements and understandings to raise concerns or encourage participants to reflect upon behaviors during the group. The manner in which the group rules are developed and the level of input from the facilitator will depend upon the age and abilities of the participants, with younger children requiring more direction. Rules are constructed from the expectations of group members as well as the explicit and implicit directions from the group leader. An important consideration with group rules is that they are created very early in the group and once they are established, they are difficult to change. Almost all of the group leaders' early behavior is influential in the shaping of rules. For example, if the group leader tolerates or laughs at a particular behavior from the start of the group, the students will receive a message that the behavior is appropriate in the group. It can be challenging for the group leader to then challenge that behavior or suggest that it is not appropriate. Rules to consider for group therapy include: active involvement in the group; nonjudgmental acceptance of other group members; self-disclosure; dissatisfaction with one's current behavior(s); a desire and commitment to change. There are also procedural rules to consider, including: how much time does each member get during a group session (aiming for equal time as far as possible or at least equal opportunity for each participant to share if he or she chooses); should members be required to participate in each session (ideally they attend the first or second session and most sessions thereafter for group consistency and to avoid going over previous activities or learning), and how much choice participants have within the group (such as choice of

activities and the choice to not participate if they would prefer not to which needs to be balanced with ensuring the group setting is comfortable and emotionally safe to encourage active participation). The way in which the psychologist manages these considerations will be determined by the ages and needs of the participants, the psychologist's own style and preferences, and particularly goals of the counseling group.

Throughout the facilitation of the group it will be useful to focus on both content and processes within the group dynamics. Keeping an eye on the process will enable the facilitator to gain a better understanding of the group experience. This includes noticing the body language of each participant, the interactions between participants, the tone of voice used by participants, openness to share and contribute to group discussions and willingness of each participant to actively engage in activities. This can also include awareness of the interactions between the facilitator/s and group participants, and the overall level of energy and engagement during group discussions and activities. It is common for conflict to occur within a group setting and this can provide an opportunity for the facilitator/s to support the students in resolving the conflict situation through respectful communication processes. This can form part of the therapeutic goals for the group, particularly for students who are anxious or experiencing difficulty managing strong emotions.

Evaluation of the group is crucial to determine how successful it has been. Pretests and posttests of measures related to the students' needs can be useful to determine changes in attitudes and behaviors. The measures could include responses from the student, the parents, and teachers. Some programs include these measures which aim to capture the students' beginning knowledge and skills and then compare them at the end. Tools such as the Strengths and Difficulties Questionnaire (Goodman, 1997) can provide a useful general measure that can be sensitive to changes. Keeping observational records (such as notes related to the student's participation and behavior each session) can track each student's progress in the group. Obtaining reports from teachers and families, and providing opportunities for the students to reflect and comment on their own development and progress can also be useful ways to evaluate the group. It can be useful to undertake a mid-program review, particularly by asking students, parents, and teachers for feedback on their own observations of changes or improvements. Information gathered during the program, along with pretest and posttest results, may be useful to provide to classroom teachers and the family with recommendations for follow-up to extend the learning beyond the realm of the group itself.

Examples of group therapy programs

1. Universal programs implemented as a whole school approach by classroom teachers across all levels. School psychologists can play a role in working with the leadership team to determine needs, drawing upon the school's data, choose the most appropriate program, train all staff in implementation, providing implementation support as required, assisting in the development of an appropriate evaluation method, and providing guidance in linking the program with school improvement goals. The analysis of student needs can also include the opportunity for more tailored group therapy program development for students with targeted needs, including students with anxiety, depression, ADHD, autism spectrum disorder, experiences of past trauma, and students impacted by natural disaster.
2. Social skills group where students with significant social anxiety issues can participate in a group with others who share similar concerns. Through the explicit teaching, practice and modelling of skills, with tailored and specific feedback and prompting, the student's confidence and skills are able to build. The psychologist may also be able to observe the particular concerns of the student, or ongoing challenges they experience despite their participation in the group. Further intervention can therefore be more adequately determined, including referrals for assessment or follow up through individual counseling.

3. Task focused group of adolescents—peer drug education program where a group of senior students participated in a training program to enable them to facilitate groups with junior level students in relation to cigarettes and alcohol use. Benefits for both the senior students were evident from the informal evaluation undertaken: promoting their engagement with school, their increased awareness of risks of drugs and alcohol, increased social skills, enhanced self-confidence and junior students: improved engagement in health classes, access to positive role models, engaging curriculum in relation to drug and alcohol.
4. Seasons for Loss Group (Australian program for students impacted by death and/or other losses). Structured 10-week program with students including a final session with parents to provide them with an overview of the content of the program, sharing of activities with the students and promoting ways for them to continue the conversation at home.
5. Tuning Into Kids Parenting Program during transition from preschool to school. Two sessions held at the end of the preschool year and two after the school year commenced. Promoted engagement for the parents with the new school. Assisted parents to prepare for the transition, to meet other parents going through the same experience and learn and practice new skills based on emotion focused coaching. The group can provide an opportunity for parents to share their experiences, including concerns and disappointments as well as positives. The group facilitator can support the parents to manage expectations and develop strategies to deal with those concerns.

Test Yourself Quiz

1. You have been referred a number of students with "anger management issues" identified as the main presenting issue. What considerations will be important when deciding whether to work with each student individually or to establish a group?
2. Although the psychologist has spoken with the school leadership team about the range of options available, including group work, the referrals continue to be targeted at individual students with requests for counseling. What arguments might you use to assert yourself about the potential benefits of group work?
3. The school you have recently commenced working with is a small school in a community where everyone knows each other. The school principal has suggested that you facilitate a parenting group because there are a number of concerning behaviors the school council has identified occurring in the community. The principal thinks that the parents need to become better parents. How might you respond to such a request from the principal? If you agree to facilitate a group what ethical issues would you be aware of?
4. A new teacher at the school heard about a program for students on the radio. The advertiser stated that the program was performing miracles and all students should be participating in the program to benefit their mental health. The principal is sounding quite convinced and seems eager for you to get the program running at the school. You have not heard about the program or the methods it involves. What concerns would you have and how would you respond to the principal's suggestion that you run the program?
5. You have set up the program with eight students and at the end of the first session you are feeling quite pleased with the way the students responded. As you walk through the school later that day you notice one of the participants appearing upset. You wonder if this has anything to do with their participation in the program. What would be the most appropriate response for you?

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Social and Emotional Learning: Role of School Psychologists in Australia

Michael E. Bernard, Maurice Elias, Perry Bell, Joseph Ferrito, and Kristina Langione

Introduction

The important role of social and emotional learning skills (SELs) in student learning and well-being has been well documented (Durlak, Weissberg, Dymnicki, Taylor, & Schellinger, 2011). The Collaborative for Academic, Social, and Emotional Learning (CASEL), a leading international organization promoting theory, research, intervention, and policy advocacy related to SEL, identifies SEL as encompassing the following five sets of competencies ("SEL Competencies," n.d.):

- **Self-awareness**: The ability to accurately recognize one's emotions and thoughts and their influence on behavior. This includes accurately assessing one's strengths and limitations and possessing a well-grounded sense of confidence and optimism.
- **Self-management**: The ability to regulate one's emotions, thoughts, and behaviors effectively in different situations. This includes managing stress, controlling impulses, motivating oneself, and setting and working toward achieving personal and academic goals.
- **Social awareness**: The ability to take the perspective of and empathize with others from diverse backgrounds and cultures, to understand social and ethical norms for behavior, and to recognize family, school, and community resources and supports.
- **Relationship skills**: The ability to establish and maintain healthy and rewarding relationships with diverse individuals and groups. This includes communicating clearly, listening actively, cooperating, resisting inappropriate social pressure, negotiating conflict constructively, and seeking and offering help when needed.
- **Responsible decision-making**: The ability to make constructive and respectful choices

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about personal behavior and social interactions based on consideration of ethical standards, safety concerns, social norms, the realistic evaluation of consequences of various actions, and the well-being of self and others.

CASEL further defines SEL as encompassing a set of interventions at all levels of a school, designed to promote the development of those skills in continuous and coordinated ways (Collaborative for Academic, Social, and Emotional Learning, 2013). Today, throughout many states in the United States and in many countries (e.g., Singapore, Scotland, Australia), school-based programs teach all students that learning and acting with SEL is the norm rather than the exception ("State Standards," n.d.; http://enseceurope.org/).

In Australia, it is the case that, due in part to Australian SEL-oriented, mental health research (e.g., Bernard, 2008; Goodman, 2001) as well as international scholarship in SEL (e.g., Elias et al., 1997), both the fields of psychology and education now accept that the development of social and emotional skills of young people is central to their mental health and school achievement. It is also now generally accepted that the responsibility for social and emotional education is not as it has historically been the case a home responsibility, but rather one of school–home/community collaboration (Bernard, 2006). Indeed, in schools today, with the advent of Australia's new national curriculum, the personal and social up-skilling of young people has been taken out of the exclusive province of health and physical education and moved into the mainstream responsibilities of all teachers (e.g., Bernard, 2006) (for background, see "Personal and Social Capability," n.d.).

In this chapter, we review the history of SEL and the role of psychologists in Australia, some background on social and emotional learning in schools, examples of its implementation in Tier 1 (i.e., preventive or universal interventions directed at entire populations without regard for risk status) with a focus on Australian examples, and then look at three areas in the social and emotional field with a potential for strong growth and influence by Australian school psychologists: Tier 2 interventions (i.e., those targeting students who possess risk factors or who are exhibiting early signs of difficulty), assessment, and work with parents.

Historical Contributions of Psychologists in Australia to the SEL Agenda

A signature accomplishment of psychologists in Australia has been their role in shifting the priority of schooling from the academic to the academic and social-emotional. Since the late 1980s, Australian psychologists have developed SEL preventive mental health programs (e.g., You Can Do It! Education, Bernard & Hajzler, 1987) (see Table 1) that have been adopted by primary and secondary schools for all children and adolescents. Australian SEL program development efforts predated CASEL and grew from psychologists' positive experiences in teaching CBT and coping skills (e.g., the ABCs of resilience, confidence, social skills) to children referred for emotional and behavioral difficulties. Some of these programs focus on the early years while others have been developed for primary or secondary age students. Today, SEL programs in Australia are closely aligned with CASEL guidelines (www.CASEL.org). Without direct support or funding from federal or state governments, different SEL programs have been published over several decades largely by psychologists working at Australian universities. However, in the past decade, government research support for evaluation of SEL programs has expanded greatly.

A number of websites published by federal and state education departments provide lists of SEL programs (e.g., see www.kidsmatter.edu.au), which, as a result of the published research base, are considered "best practice" programs. Most of these programs are domestically grown. Especially in the early days, it has not been the Australian experience to import SEL programs developed in the USA or elsewhere (see Table 1).

For over 20 years, SEL primary prevention programs have been extensively used by teachers

Table 1 Sample of "best practice" social and emotional learning programs

Aussie Optimism Program (Roberts, Kane, Thomson, Bishop, & Hart, 2003; Roberts et al., 2011)
Aussie Optimism provides teachers, practitioners, and parents with practical strategies and resources for developing children's social competence, self-management, and positive thinking in everyday life, during times of stress, and across transitions, like the move to high school. The programs are developmentally appropriate for children in middle and upper primary, and lower secondary school
You Can Do It! Education (Ashdown & Bernard, 2012; Bernard, 2011, 2013)
YCDI is a school–home collaborative approach for developing the social and emotional capabilities of students of all ages. The five social and emotional skills taught are confidence, persistence, organization, getting along, and resilience. YCDI helps students develop 12 positive Habits of the Mind (e.g., self-acceptance, high frustration tolerance, acceptance of others) and eliminate negative Habits of the Mind (e.g., self-depreciation, low frustration tolerance, lack of other acceptance) as well as teaches students how by changing their thinking, they can influence their emotions and behaviors. YCDI consists of p-Year 12 social and emotional learning curricula ("YCDI Early Childhood Program"; "Program Achieve")
Bounce Back (McGrath & Noble, 2012)
The program is written for teachers in primary and secondary schools or psychologists/counsellors in schools and mental health settings who want to enhance student well-being and teach resilience skills. The three Bounce Back books are lower primary (K-2), middle primary (years 3–4), and upper primary/junior secondary (years 5–9). The BOUNCE BACK! Wellbeing & Resilience Program addresses the environmental building blocks and the personal skills for fostering resilience in children and young people
Friendly Schools and Families Program (Cross et al., 2003, 2012)
This program is aimed at the individual, group, family, and/or school community level. It aims to prevent bullying in its social context. The program assists with the design, development, implementation, dissemination, and evaluation of a social skill building and comprehensive anti-bullying program. The program provides strategies for a whole-school program (including ethos, policy and practice, physical environment, social environment, engaging families, learning environments, and behavior management)
FRIENDS for Life: FRIENDS for Children (Barrett & Sonderegger, 2005; Iizuka et al., 2014)
FRIENDS for Children is a program designed for use in schools as an anxiety prevention program and resiliency building tool. It is aimed at young people aged 7–11 years. FRIENDS for Children helps children cope with feelings of fear, worry, and depression by building resilience and self-esteem and teaching cognitive and emotional skills. FRIENDS for Children promotes important self-development concepts such as self-esteem, problem-solving, self-expression, and building positive relationships with peers and adults

in Australian early childhood settings, primary and secondary schools. For example, The You Can Do It! Early Childhood Education Program (Bernard, 2004) has been taught in over 2500 preparatory/kindergarten settings. Furthermore, over 1,000,000 primary and secondary students in over 4000 schools have been taught SEL lessons from Program Achieve, which is a Social and Emotional Learning Curriculum (Bernard, 2007a, 2007b). Research evaluating these programs has shown a positive impact on student well-being (Bernard & Walton, 2011) and the well-being, externalizing problems and reading achievement of younger children (Ashdown & Bernard, 2012; see Table 1).

Current Context for SEL Programs in Australia

Currently, in Australian education, there are two main catalysts for the implementation of SEL programs, the best of which is summarized in Table 1. The extent to which these two initiatives stimulate or permit involvement of school psychologists in the SEL agenda is discussed below.

KidsMatter and MindMatters

KidsMatter Primary (Department of Health and Ageing, 2010a) is the first national mental health promotion, prevention, and early intervention initiative specifically developed for primary schools

in Australia. It has been developed in collaboration with the Australian Government Department of Health and Ageing, beyondblue: the national depression initiative, the Australian Psychological Society, and Principals Australia.

Distinct from a SEL program, KidsMatter Primary offers schools a framework to implement evidence-based strategies to ensure students are taught social and emotional skills to manage ongoing challenges and to relate well to others. Schools voluntarily participate in the initiative work towards implementing four foundational components: positive school community, working with parents and carers, helping children with mental health difficulties, and social-emotional learning for all students.

In 2006–2008, KidsMatter Primary was piloted nationally in 101 schools across all States and Territories of Australia; all three education systems (Government, Catholic, and Independent); and metropolitan, rural, and remote communities. A comprehensive evaluation was conducted by Flinders University, with findings showing that the KidsMatter Early Childhood initiative has a positive impact on schools, children, parents, and carers (Slee et al., 2012), including improved staff–child closeness, improved child temperament, and reduced mental health difficulties.

MindMatters (Department of Health and Ageing, 2010b) is a secondary school's framework supported by the Australian Department of Health that specifies practices aimed to promote mental health, prevent mental health problems, and enable early intervention. MindMatters provides useful resources and links for young people, families, teachers, and schools (www.**mindmatters**.edu.au/).

New Australian National Curriculum

Based on Gardner's work with intrapersonal and interpersonal intelligences within his multiple intelligences framework (e.g., Gardner, 1983), Goleman's (1995) work on emotional intelligence, and the CASEL framework of social-emotional skills, the new national curriculum identifies the need for all teachers to support students' acquisition of personal and social skills (self-awareness, self-management, social awareness, social management) with a scope and sequence of personal and social skills students need to be taught (and assessed on) every second year provided (see Australian Curriculum and Assessment Authority [ACARA], 2015a). Assessment methods and measures have not as yet been addressed by ACARA.

The new, proposed Health and Physical Education curriculum (see ACARA, 2015b) spells out a wide variety of personal and social skills to be taught across the year levels (self-awareness, social awareness, self-management, social management).

The Role of School Psychologists in Advancing the SEL Agenda

Recent Australian research reported by Bell and McKenzie (2013), building on the work of Thielking and Jimerson (2006) and Thielking, Moore, and Jimerson (2006), continues to show extensive differences in the roles and functions of school psychologists. Specifically, it appears as if the more experienced and senior psychologists working in independent and Catholic schools are more involved in the SEL agenda than recent graduates—especially those working in public state school settings whose role specifications do not often involve systemic consultation. These psychologists may well be less crisis-driven and as a consequence have more time to devote to prevention. Those psychologists who employ a systemic framework of service provision are more likely to be involved than those who practice using a client-centered, assess and intervene framework. Additionally, there are likely differences in practices of psychologists working in different states. For example, informal discussion reveals a more proactive SEL involvement of psychologists working in Western Australia than in other states. (Systematic data are not available on the number of psychologists working in schools who are involved in the SEL agenda.)

There are differences in the ways in which psychologists offer SEL-oriented services to schools. The types of availability of SEL practice

depend on whether a psychologist is employed by/centered at one or more schools or whether they are employed at a center where they offer different services requested by a school. It is certainly the case that many psychologists in schools offer SEL programs self-initiated or requested as primary prevention (e.g., social skills). It is unclear whether 1:1 treatment services provided by school psychologists for referred students include an SEL component.

Whereas two decades ago, primary prevention SEL programs were more likely to be delivered by mental health practitioners (psychologists, counsellors), it appears today that the picture is quite different. In classrooms today—especially at the primary level—the vast majority of SEL programs are "delivered" by the classroom teacher. School psychologists are more likely to conduct smaller SEL group work with "at risk" students and be involved in the decision-making on the type of program to introduce to a particular school.

In summary, school psychologists in Australia are more able to be involved in the SEL agenda in the following ways:

1. Advocacy/consulting with school administrators at school level for SEL programs for all students (especially at secondary level)
2. Program planning and evaluation of SEL programs
3. Delivery of SEL programs to referred students (and in independent and nongovernment schools to classroom groups of students)
4. Incorporation of SEL training in treatment plans and delivery
5. Teacher training in the delivery of SEL intervention programs

The Role of School Psychologists in Tier 1 SEL Interventions

School psychologists tasked with improving student well-being are in unique positions to advocate for, develop, and implement SEL programming. Too often, however, finding sufficient time to do so eludes school staff members—psychologists, counsellors, teachers, others—embedded in school contexts. In the United States, for example, school psychologists spend most of their school days engaged in psychoeducational related activities including cognitive testing and report writing, leaving little time to focus on SEL (Reschly, 2000). Given the importance of targeting these skills, and the paucity of time afforded for them, it is important to explore the ways in which school psychologists can understand and utilize their unique school contexts to implement effective and worthwhile SEL interventions.

The concept of multiple tiers of intervention has become widespread in American school psychology and we will use that distinction here (National Association of School Psychologists, 2009). Tier 1 interventions are considered universal because they reach all children in a school; Tier 2 interventions reach students who are identified, often by assessment, as being at greater risk for problem behaviors or who are not responding adequately to Tier 1 interventions. Tier 3 is the most intensive and most removed from the mainstream, typically involving specialized programs, services or even schools and often encompassing what is referred to as "special education." We begin with considering SEL as reaching all students, i.e., Tier 1. Because schools are complex systems, it is the unique composition of stakeholders, attitudes, and personnel, to name a few factors that dynamically affect the ways in which SEL interventions are implemented in schools. This challenge creates a potential role for the school psychologist as one of the organizational leaders of student well-being intervention efforts. The complexity also calls for a scientist–practitioner, accountability mentality common to the practice of many school psychologists. When a SEL intervention is implemented and doesn't yield the desired program results—even if "evidence-based"—this outcome is not necessarily a setback. Rather, it provides valuable data points that can help guide more contextually relevant and sustainable interventions.

An illustrative example of this process is seen in a public school in New Jersey (USA) in which three of the authors worked over a period of 4 years. The school had high numbers of discipline

incidents, poor levels of academic achievement, and low staff morale, as evidenced by school climate data. From these data, school psychology-trained consultants brought teacher discussion groups together to consider systematically implementing an SEL-based intervention in the school as a way to address discipline, build learning-to-learn skills, and improve morale by improving student engagement in learning and school life. Initial efforts at SEL skill building in the students were not successful because existing evidence-based interventions were not culturally and contextually sensitive to this largely Latino/Black population. Staff were hesitant to persist, having seen so many efforts come and go in their school. By recognizing these attitudes and empowering staff to create a tailored version of SEL interventions that they felt would work with their students, and embedding ongoing formative evaluation into the process, the consultants learned from an initial setback, allowing for more meaningful intervention.

In advocating for the importance of SEL programs to school decision makers, school psychologists must be mindful of prevailing school community attitudes towards SEL and related intervention histories. Community attitudes may shape the receptivity of administrators, staff, and students to integrating SEL or other noncognitive interventions. In some schools, community members may not perceive such approaches as a valuable use of already limited teaching and learning time. If key stakeholders and players have not "bought-in" to an intervention, an SEL program may not be effective (Haynes, 2007; Pasi, 2001).

If a school setting isn't sufficiently primed for a fully integrated program, because of non-receptive attitudes, lack of resources or otherwise, school psychologists have options in helping a school move towards the integration of SEL at the universal level. Rather than an "all-or-nothing" approach, it may be a helpful perspective for school psychologists to conceptualize SEL interventions on an *intervention continuum*.

Starting on the more minimal, but not necessarily less effective, side of the intervention continuum of SEL programs and strategies, school psychologists can advocate for SEL awareness (targeting administrators, teachers, parents, and students alike) or work towards developing a common SEL language within the school community. Easily accessible resources exist for fostering this awareness (Dunkelblau, 2009; Elias & Berkowitz, in press).

Intermediate along the SEL intervention continuum, school psychologists may implement more formal, skill-based or process-oriented classes and trainings for those interested in carrying out SEL curricula in their classrooms. CASEL has been an important source of guidance in selecting such evidence-based curricula (CASEL, 2013; Elias & Arnold, 2006). Individual staff members bring SEL into their classrooms has been a first step in school-wide SEL adoption. Other areas of school strengths can be entry points in the school community that can be used as program scaffolding to support meaningful SEL intervention. There may be opportunities in daily homeroom periods, blocks of time embedded into an existing school day, student government, athletics and arts, and after-school clubs.

Finally, along the intervention continuum, SEL can be integrated into academics, such as language arts, social studies, or math (Elias & Bruene, 2005; Pasi, 2001). An excellent video illustrates how schools in Anchorage, Alaska make mathematics into a cooperative activity, in which students build SEL skills to help one another to learn and work together to understand how to tackle and solve a variety of math problems (http://www.edutopia.org/math-social-activity-cooperative-learning-video). Overall, research shows that when SEL is integrated into student learning and development, it is the most sustainable and effective form of intervention (Dreyfoos, 1994; Durlak et al., 2011).

By way of example, an urban public school in New Jersey began using homeroom periods to engage students around school climate issues. The students' SEL skills were built in the context of better enabling them to discuss and reach consensual decisions about school climate improvement plans within each homeroom period. These recommendations were gathered and funneled to a student-led committee that met with school administrators with the goal of creating a more

positive school climate. Given the program's success, other schools in the district have adopted similar approaches. A private high school in New Jersey has used weekly school-wide meetings for brief booster sessions to advocate for positive mental health. This same school now offers once per semester stress management seminars to focus on skill building, which, after one school year, became a stress management/emotion regulation course built into all freshman schedules. Other schools incorporate systematic building of emotion vocabulary into language arts assignments. As these examples show, building on existing strengths can develop momentum towards developing more integrated SEL programming. (Extensive video examples can be found at www.edutopia.org.)

Assessment of SEL in Schools

The use of assessment techniques has grown exponentially in an attempt to meet the demand for objective data on a variety of processes facilitated by schools. Academics remain as the primary focus of assessment at every level, from individual student to the overall achievement of entire nations. However, as systematic research continually identifies a multitude of benefits associated with fostering social and emotional skills, there has been additional focus on identifying methods to accurately and feasibly assess social and emotional skill competency and development (e.g., Haggerty, Elgin, & Woolley, 2011).

The evidence that SEL significantly enhances student success in school and in the community is leading nations, provinces, regions, and states to begin integrating aspects of SEL into enforceable standards on what instruction should entail at various grade levels, as is happening in Australia and the United States. To determine the extent to which SEL skills are being fostered effectively to meet these standards, assessment is necessary. By assessing SEL systematically, best practices for supporting SEL skill development can be more readily identified. These best practices include everything from individual- and group-based methods of intervention to school- and district-wide programming, to nation-wide systemic emphasis and policy. At the level of the individual in particular, educators equipped with more comprehensive knowledge of students' SEL competencies can foster interventions better tailored to meet areas of particular need.

As we describe later, multiple large-scale reviews have sought to identify which, if any, behavioral, social, emotional, diagnostic, and functional measures are best suited for the assessment of SEL skills. These reviews are likely to continue to emerge, because assessment of SEL is a new field, growing in importance, and is being approached from a range of perspectives. So school psychologists interested in this area must be aware that current knowledge is preliminary, and this will be an area to keep up with, to be able to implement best practice. Also, one must choose instruments based on one's theoretical perspective on SEL or, equally important, the way SEL is operationalized in any interventions being used in the schools. Mismatch of assessment tasks to intervention constructs is a frequent problem in an emerging field, and causes difficulties for school psychologists who want to avoid inaccurate evaluation of programs. Hence, formative evaluation of SEL implementation will continue to be paramount.

For school psychologists, as well as the educators they work with, the lack of consistent terminology and definition of social-emotional skills, as well as disagreement as to what the essential aspects of SEL truly are, can yield confusion. This is reflected in major reviews of SEL-related assessment. Some measures are aimed toward specific skills under such labels as "social and emotional intelligence," "emotional literacy," and "social and emotional competence" (Barblett & Maloney, 2010; Wigelsworth, Humphrey, Kalambouka, & Lendrum, 2010). Organizations such as CASEL and the Raikes Foundation have organized compendiums of SEL measures (Denham, Ji, & Hamre, 2010; Haggerty et al., 2011) and listed clearly which of the five core SEL competencies identified by CASEL are covered by each measure reviewed (see also Humphrey et al., 2011; Strive Together, 2013). Similarly, organizations such as the RAND

Corporation and independent researchers have published guidelines (Stecher & Hamilton, 2014) and key considerations (Barblett & Maloney, 2010; Watson & Emery, 2010; Wigelsworth et al., 2010) for the development and investigation of future measures of SEL.

To serve as a jumping-off point for future work in the field, recommended measures compiled from several of the large-scale reviews just cited are included in Table 2. Measures were primarily selected for inclusion based on the extent to which the five core SEL competencies (as defined by CASEL) are addressed. The table provides measures ordered based on number of items to provide educators a sense of the range of options from most brief and potentially feasible, to most comprehensive and detailed. Each of these measures was shown to provide a valid assessment of some SEL skills, but may not fully address all of the dimensions of various skill categories or groupings. Measures in which observers serve as primary raters were prioritized; however, two self-report measures that entail the majority of the CASEL 5 core competencies were additionally included to highlight the potential for such measures as a method of assessing SEL skills. For a more detailed examination of each of the measures produced including aspects such as reliability and validity data, scoring procedures, strengths and weaknesses, other competencies and behaviors assessed and more, educators are encouraged to investigate relevant research including large-scale reviews of measures which are likely to be produced continually in the future (e.g., Denham et al., 2010; Haggerty et al., 2011; Humphrey et al., 2011; Strive Together, 2013).

Unfortunately, these instruments have yet to be normed in Australia. One positive development is The Survey of Social-Emotional Well-being (Bernard, Magnum, & Urbach, 2009a, 2009b), published by the Australian Council for Educational Research. This multiple-choice student and teacher report survey has been completed by over 40,000 students and provides group data on student well-being including their social, emotional, and learning skills that schools use to guide decision-making on well-being and SEL needs and practices. Australian research reveals student well-being is ecological and can be described in a continuum of levels (high to low). Students with highest levels of well-being are well connected to positive adults, peers and programs in schools, home and the community, as well as possessing well-developed social-emotional and learning skills (Bernard, 2008). Students with lower levels of well-being are increasingly disconnected from positive adults and peers and display progressively less well developed social and emotional literacy.

Australia and the USA, with many schools and varied approaches to SEL, also share a particular need for feasible and scalable measures of SEL for all students that place relatively little additional burden on educators. For example, over the years in both countries, teachers have incorporated within their grading system of students a rating of their SELs (e.g., extent to which students display resilience, confidence, and persistence). Although no particular assessment system has been identified, there is one practice that emerged based on the original intuition from educators that behaviors matter: report card comments. The "Other Side of the Report Card" refers to the behaviorally driven comments included on nearly every report card. At the Social-Emotional Learning Lab at Rutgers University, the paucity of research on styles of feedback and behaviors included in report card comments presented as an opportunity to utilize an existing system to which teachers already allocate time, districts already provide funding, mechanisms for sharing information with students and teachers and parents are already in place, and student progress can readily be tracked to report on meaningful SEL skills. Through work with several school districts in New Jersey, the SEL Lab has developed procedures for modifying report card comment sections in a way that is customized to the specific skills within the core dimensions of SEL that individual districts and schools identify as the most imperative to assess (Elias, Ferrito, & Moceri, in press). School psychologists can play an important role in bringing these kinds of assessment innovations into their schools.

Table 2 Best supported SEL-related assessment approaches

Measure	Number of items	Estimated completion time	Age range	Competencies assessed	Rater
Adapted Report Card Comment Sections (Elias et al., in press)	Variable	Variable	0–18	Customizable	Observer
Devereux Student Strengths Assessment-Mini (DESSA-Mini) (LeBuffe, Shapiro, & Naglieri, 2012)	8	5–10 min	5–13	Self-management, relationship skills, responsible decision-making	Observer
Relationship Questionnaire (Denham et al., 2010)	24	5–15 min	7–18	Self-awareness, social awareness, relationship skills, responsible decision-making	Self-report
Strengths and Difficulties Questionnaire (SDQ) (Haggerty et al., 2011)	25	10–15 min	3–16	Self-management, social awareness, relationship skills, responsible decision-making	Observer
Social-Emotional Assets and Resilience Scales (SEARS) (Nese et al., 2012)	41	15 min	5–18	Self-management, social awareness, relationship skills, responsible decision-making	Observer (self-report also available)
Resiliency Inventory (Denham et al., 2010)	44	10–25 min	7–17	Self-awareness, self-management, social awareness, relationship skills	Self-report
Behavioral and Emotional Rating Scale—Second Edition (BERS-2) (Denham et al., 2010)	52	15 min	5–18	Self-awareness, self-management, social awareness, relationship skills	Observer (self-report also available)
Social Skills Rating Scale (SSRS) (Denham et al., 2010)	57	15–20 min	5–17	Self-management, relationship skills, responsible decision-making	Observer (self-report also available)
Devereux Student Strengths Assessment (DESSA) (Denham et al., 2010)	72	15–20 min	5–13	Self-awareness, self-management, social awareness, relationship skills, responsible decision-making	Observer (self-report also available)
Child Behavior Checklist (ASEBA-CBCL) (Haggerty et al., 2011)	112	20 min	6–18	Social awareness, relationship skills, responsible decision-making	Observer (self-report also available)
Social-Skills Improvement System (Haggerty et al., 2011)	140	15–25 min	3–18	Self-management, social awareness, relationship skills, responsible decision-making	Observer (self-report also available)

Tier 2 Approaches and Data-Based Decision-Making

Advances in assessment are essential to progress in Tier 2 interventions, which are particularly driven by knowing when students are lagging in specific skill domains. When students who have either presented with social-emotional deficits or are in need of anticipatory guidance due to being in circumstances known to produce difficulties, such as the death of a parent or financial instability as the result of unemployment, targeted Tier 2 interventions are indicated (Anderson & Borgmeier, 2010). The first step in this data-based decision-making model is to conduct a thorough needs assessment to identify students who require, or at risk of requiring, a higher level of care than the universal interventions already being implemented. As discussed in the assessment section and Table 2, there are a variety of ways to assess social-emotional competencies in students, such as the BASC-2 or DESSA-mini. Also valuable are existing data, including absentee records, discipline records, behavior notations on progress reports and report cards, and participation rates in extracurricular activities, which can be analyzed to identify students at risk of emotional, behavioral, and academic difficulties.

Highlighted Tier 2 Interventions

This section will discuss selected salient and feasible Tier 2 social-emotional interventions organized into the two categories previously discussed—interventions for students who have already presented with skill deficits and students who are at risk and could benefit from the development and practice of such skills. While some of the interventions are packaged, small group modules designed for a targeted population, classroom-wide interventions can also be used as Tier 2 interventions when individual classes display a higher need than the general school population. For example, classes with high proportions of students with learning disabilities may implement a program that emphasizes emotion regulation and self-monitoring, a self-contained class for students with Autism Spectrum Disorder may implement an emotion recognition and/or a social skills program, and a class with particularly high rates of discipline referrals may choose a program emphasizing responsible decision-making and self-awareness.

Reducing problem behavior. The Good Behavior Game, which of course is not new (Barrish, Saunders, & Wolf, 1969), can be considered an SEL intervention and implemented in either setting. It is an intervention that has been effectively replicated with many varying populations, such as culturally and linguistically diverse students, students with Attention Deficit Hyperactivity Disorder, and students presenting with behavioral issues in class (Nolan, Houlihan, Wanzek, & Jenson, 2014). During this game, a short interval of time is selected during which students are broken into groups and have to maintain a certain number of po ints by adhering to a predetermined list of rules that is shared with the groups. They may compete against other groups or try to earn a particular number of points as a group to earn a reinforcer. Although this intervention can be viewed through a behavioral lens, the Good Behavior Game teaches self-awareness and emotion regulation skill. For students who struggle with monitoring their behaviors, this game makes it easier by asking the groups to simply focus on a small number of behaviors during a short time period (sometimes less than 5 min depending on developmental ability) and the groups help to remind one another to regulate their actions. Moreover, the competitive nature the game can take, along with "losing points" due to a teammate's behavior challenges students' ability to tolerate negative emotions and delay gratification as they work towards their reinforcer. All of these skills are critical within the SEL framework.

A second intervention, Coping Power (Lochman & Wells, 2002), is specifically designed to be used with small groups settings for children identified as having difficulty regulating anger or being disruptive. The program is relatively intensive, with thirty-four 50 min group, home, and some individual sessions that focus on skills needed to transfer into middle

school, including goal setting, problem-solving, anger management, and social relationships. Replicated in numerous samples of students with emotional difficulties, Lochman et al. (2009) found that students in Coping Power, when compared to a control, demonstrated positive effects on externalizing behavior in school.

In a climate of increasing pressures and roles for teachers to support the whole child academically, emotionally, and behaviorally, it is promising that evidence supports the use of computer-based interventions with particular populations. Specifically, interventions delivered on the computer were as effective as face-to-face instruction of social skills in groups of students with Autism Spectrum Disorder (Ramdoss et al., 2012). Within this type of intervention are the Mind Reading and Junior Detective social skill programs. Mind Reading is software designed for students at least 5 years old and teaches human emotions while incorporating games (Golan & Baron-Cohen, 2006). Junior Detective Training Program is designed for a narrower age bracket, students 8–11 years old, and teaches self and social awareness by asking students to predict emotions of others and relate to real-life scenarios (Beaumont & Sofronoff, 2008). There is a tremendous proliferation of computer and video games used for SEL skill development, and this is a major growth area for monitoring and contribution by school psychologists (DeRosier, 2014).

Anticipatory guidance. The theory of anticipatory guidance is to develop early warning signs of need for intervention and provide them as soon as possible, ideally to prevent problems from unfolding or at least to minimize secondary effects of potential problems that arise. One approach is based on developing reliable indices of risk for problems in students. Many schools are developing their own data systems to predict signs of academic failure, dropout, and the like. One example is First Step to Success (Walker, Stiller, & Golly, 1998), a Tier 2 intervention that originated for use with preschool students at risk of developing aggressive behavioral patterns, aiming to intervene at the earliest point in a student's educational career by connecting school and families. It has since been expanded in its use to first and third grade students and incorporates a parent training component with a classroom intervention that emphasize problem-solving, communicating with others, and relationship skills (Walker et al., 2009). For middle school students, providing positive, non-stigmatizing interventions for targeted SEL skill building, such as newspaper clubs documentary making, and a Social Decision-Making Lab (Elias & Bruene, 2005), are especially appealing.

The other approach, less familiar to many practicing school psychologists, involves providing Tier 2 intervention to students experiencing events known to have a high likelihood of behavioral or emotional disruption. These interventions try to build SEL skills as a means of identifying feelings in situations and developing coping strategies and skills. Foremost among these are programs directed at children whose families are undergoing separation or divorce. Empirically shown to be effective, children are given a chance to enter these programs as soon as the school learns about separation or divorce in their families (Pedro-Carroll & Jones, 2005; Wolchik et al., 2009). Data show that even when children are not having coping difficulties, they benefit from being sources of support for their more troubled peers. James Comer also pioneered this approach directed toward children whose parents were incarcerated or who died (Comer, Haynes, Joyner, & Ben-Avie, 1999; Haynes, 2007).

Finally, technological advances have provided an intervention approach that can be used for both types of anticipatory guidance. Students using Ripple Effects software can get SEL skill-building modules as a function of searching for problems they are experiencing (such as bullying, divorce, or abuse) or skills they want to build (such as emotion recognition, self-control, or problem-solving). With strong empirical validation and use in various countries, Ripple Effects is an outstanding resource to supplement universal, Tier 2 and even Tier 3 interventions in ways that appeal to the multiple intelligences strengths of virtually all learners (http://rippleeffects.com/).

In general, further work on utilization of the Tier 2 interventions mentioned above within the

context of Australian schools may be warranted. Not surprisingly, it is likely that technology-based approaches, such as Ripple Effects and SEL video/computer games, might be most accessibly transferred and thus might merit prioritizing for application in Australia.

SEL and Parents

Of course, one of the greatest challenges for school psychologists is involving parents, whether in support of specific school interventions or, more generally, in support of the education of their children. A truly international approach to working with parents in the area of SEL is the emotional intelligence paradigm. Popularized by Daniel Goleman's (1995) international best-selling volume, *Emotional Intelligence*, the concept and practice was applied to parents with *Emotionally Intelligent Parenting* (Elias, Tobias, & Friedlander, 2000). This book has been translated into a dozen languages and has recently been released as an e-book. In Australia, an E-learning SEL-oriented parent education program has been produced (www.youcandoitparents.com.au). One of the earliest exposures of parents to SEL for young people was the best selling book published in 1987, "You Can Do It! What Every Student (and Parent) Should Know About Success in School and Life" (Bernard & Hajzler, 1987), that spelled out specific social and emotional skills and rational attitudes associated with school achievement and well-being (e.g., confidence, persistence, self-acceptance).

The term "Emotional Intelligence" incorporates the same basic set of skills identified now as the CASEL 5. Emotionally intelligent parenting sees these constellations of abilities as essential in harnessing the strong emotions that accompany being a parent and enacting the many profound responsibilities that come with having children. Above all, the approach recognizes that parenting techniques or approaches are built on positive parent–child relationships, on everyday routines that give expression and structure to those relationships, and on parents having control of their emotions to minimize their becoming emotionally hijacked. When the latter happens, parents are least likely to act in ways they will be proud of and from which children will glean the best interpersonal or relational messages. And of course, building these essential skills in children is accomplished to a meaningful degree by modelling.

School psychologists in Australia, as in most locations worldwide, are rarely in a position to engage in extensive, ongoing parent training and support. So three approaches are more likely to be feasible: evaluating and building the skills needed to support interventions; focusing on building competencies and parent support around key parenting situations, and promoting a sense of fun in the family. What follows are techniques school psychologists can use for each of their purposes.

Parenting Emotional Intelligence (EQ) Skills Assessment (Adapted from Elias et al., 2000)

Ask parents to honestly appraise their own and their spouse's/partner's strengths when it comes to using your EQ skills in parenting. For the items below, use the following scale:

Definitely Me		Sort of Me		Definitely Not Me
1	2	3	4	5

- Are Aware of Kids', Spouse's Feelings:
- Show a High Degree of Self-control with Children:
- Possess a Strong Sense of Empathy with Children:
- Are Great at Seeing Other Family Members' Points of View:
- Set Positive Goals for Children, Family:
- Do Organized, Detailed Planning around Parenting Tasks:
- Act in Highly Effective, Comfortable Ways With My Teenagers:
- Resolve Household Conflicts Peacefully:
- Use Creative Problem-Solving Around Parenting Issues:

When it comes to parenting, what is "definitely you"? What is "sort of you"? What is "not you"? Would your kids agree? Even one or two "5" ratings can cause considerable disruption and 4s or 5s become important foci for intervention.

Trigger Situation Monitor

The Trigger Situation Monitor (for which there are adaptations for students) is designed to help parents to identify situations that lead them to lose their cool, get in trouble, or in general engage in parenting behaviors that are ineffective and/or that they are not proud of. As you can see in the outline of the Monitor below, the sheets lead parents through a sophisticated, developmental conversation culminating in the most important part: their creating a plan for how they will handle the "trigger situation" better when it happens again.

The Trigger Situation Monitor worksheet format was developed over several decades of research on the Social Decision Making/Social Problem Solving SEL program (Elias & Bruene, 2005). In schools, teachers typically keep a stack of these worksheets in their classrooms. After an incident is over, teachers will ask children to complete the worksheets to help them reflect on what happened, what they were trying to accomplish, how their attempt worked, and how they can better handle similar difficulties in the future. Sometimes, teachers use the sheets as an interview format, if children have trouble writing or reading, or while they are getting used to working with them. Otherwise, they will review the sheets with the children at some convenient time. Staff members tasked with the responsibility for monitoring discipline interventions also use the sheets to promote reflection while children are in detention or in-school suspension. When a situation involves the entire class, or many students, teachers can distribute the sheets and have the entire class or small groups go through the sheet and discuss the various steps, toward coming up with a class-wide plan.

The same basic approach can be used with school psychologists working with parents. Usually, it takes parents several uses of the Trigger Situation Monitor to get a plan they can stick with because the situations that trigger them are, by definition, difficult for them to handle. School psychologists can help by reminding parents (or devising reminders) of their plans when they are about to confront trigger situations, and this helps to avoid situations that otherwise disrupt the parenting process. With repetition comes success, and it only takes a small reduction in trigger situations to lead to large perceived improvements in the atmosphere of the home (Adapted from Elias & Bruene, 2005).

Trigger Situation Monitor

Briefly describe a trigger situation that happened.

1. What happened?
   (a) Who were you with?
   (b) When did it happen?
   (c) Where were you?
2. How did you feel?
3. Did you notice the physical signs of stress in yourself? Where did you feel the signs?
4. What did you say and do?
5. What happened in the end?
6. How calm and under control were you as the situation was taking place?

1	2	3	4	5
Under control	Mostly calm	So-so	Tense and upset	Out of control

7. How satisfied were you with the way you communicated?

	Not at all	Only a little	So-so	Pretty satisfied	Quite satisfied
Body posture	1	2	3	4	5
Eye contact	1	2	3	4	5
Spoken words	1	2	3	4	5
Tone of voice	1	2	3	4	5

8. What did you like about what you did?
9. What didn't you like about what you did?
10. What are some other things you could have done to handle the situation? What are some things you might do if the situation comes up again? (use another page to write exactly what you would do and how you would do it)

Family Fun Assessment

Too many households are under pressure for a variety of reasons. School psychologists often are not in a position to eliminate those pressures, but they can offset them by bringing in a key element of emotional intelligence recognized most recently through positive psychology: humor. A key message for parents is this: make your household a place where people have fun, share some laughter, and have some happy times together despite difficulties. Here is an activity school psychologists can use with parents to help them stop the stress and have fun in their hectic and crazy lives (Elias et al., 2000).

Family Fun Plan Worksheet

- Fun Recall—List some times when you have had the most fun as a family
- Fun Things—List some thing that different family members find to be the most fun
- Fun Centers—List where in the house you have the most fun as a family
- Fun Time—When during the week can you schedule some family fun? For how long?
- Fun Activities—What can we do as a family to have fun?
- Make a list of possible places to have fun, including at home, at the mall, in the car, in the park, elsewhere. Be sure to allow for a listing of both parents' and children's ideas.
- Fun Resources—What do we need to have fun (e.g., books, games),
- Videos, toys, supplies, etc.—When can we allocate the time and make sure that time is protected?

In Australia, as in the United States, SEL has become the basis of comprehensive, multilevel interventions in schools and with parents. Methods have been developed and piloted with success. At the very least, school psychologists can play a vital role in beginning the task of helping educators, parents, and guardians to become more aware of SEL and its importance in their own lives and work and those of children. Doing so will help children be well prepared for the joys and challenges of life in an ever-more complex adulthood.

Test Yourself Quiz

1. Why is SEL considered central to students' academic achievement?
2. Name the five sets of SEL competencies identified by CASEL and explain how a school psychologist may support a student who is low on one or more of these components.
3. How might a school psychologist work with parents in order to enhance a child's SEL? What strategies might the school psychologist give to parents to apply at home?

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Understanding and Responding to Bullying in the School Setting

Amanda Nickerson and Ken Rigby

Awareness and concern over the problem of bullying in schools has been growing around the world over the last 15 years, with many commentators referring to the phenomenon as an epidemic or even a pandemic (Smaller, 2013). Thankfully, however, there is now good evidence from numerous studies across countries (including Australia) that the prevalence of bullying in schools has not been increasing over time; rather, peer victimisation has been decreasing (Rigby & Smith, 2011). Although it is difficult to determine the reasons for this decline, it is likely due in part to an increasing awareness of both the problem and the physical and psychological harm that bullying can cause. In recent years, many anti-bullying programs have been developed and implemented in schools. According to one of the most comprehensive meta-analyses, the "best anti-bullying programs" reduce the prevalence of bullying in schools by around 20 % (Ttofi & Farrington, 2011).

Despite such progress, the level of peer victimisation still remains unacceptably high. In Australia, for instance, it has been estimated that approximately one child in four is being bullied by peers every few weeks or more often (Cross et al., 2009). Clearly a great deal of work remains to be done at various levels, much of which requires the skills and expertise of school psychologists. Good anti-bullying policies need to be developed and rigorously implemented. Teachers need to be better instructed in how they can promote more prosocial attitudes between students and help to develop appropriate social skills in young people. Students need to learn how they can become more helpful bystanders. School counsellors and psychologists need to work more effectively with children involved in bully/victim problems. Schools and parents need to work together more effectively in both preventing bullying and resolving cases of bullying when they arise.

An important initial step in this direction requires that school psychologists become informed about what has been revealed in studies of school bullying in recent years. In this chapter, we provide a summary of relevant findings regarding the multiple factors that contribute to bullying. Approaches to prevent bullying and promote social-emotional and positive bystander skills are then presented, followed by a discussion of appropriate methods of intervention when bullying occurs. The Australian context for the problem is then described, followed by a summary of the roles for psychologists in bullying prevention and intervention.

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Bullying and Factors That Contribute to Bullying Behaviour

As a subset of aggression, bullying is a distinct, but pervasive, social problem throughout the world (Carney & Merrell, 2001; Cook, Williams, Guerra, Kim, & Sadek, 2010). Bullying is unwanted aggressive behaviour(s) by another peer (individual or group) that may harm or distress the targeted youth physically, psychologically, socially, or educationally; it involves an observed or perceived power imbalance and is, or is highly likely, to be repeated (Gladden, Vivolo-Kantor, Hamburger, & Lumpkin, 2014). Repeated aggression, harassment, or abuse, often due to real or perceived differences, can also be considered bullying (Martin, 2010). Bullying can take many forms including: physical (e.g., kicking and hitting), verbal (e.g., name calling), relational (e.g., social exclusion and gossiping) and cyberbullying (e.g., hurtful messages or images through text message or email (Williams & Guerra, 2007). In some cases, it may include extremely violent and illegal behaviour (Rigby, 2015).

Bullying is a social phenomenon that involves not only the youth who bully and who are victimised, but also bystanders (i.e., witnesses) who may assist or reinforce the bullying behaviour or counter bullying behaviour by defending the victim or intervening (Salmivalli, 1999; Salmivalli, Lagerspetz, Bjorkqvist, Osterman, & Kaukieinen, 1996). Although peers are often present when bullying occurs, the majority of these youth do nothing to help the youth who is being bullied (Cross et al., 2009). Encouragement by peers through praise, assistance and prestige (Olweus, 1993; Salmivalli, Huttunen, & Lagerspetz, 1997) can motivate students who bully to maintain or achieve social power (Gini, 2006).

Bullying Perpetration

Children who bully others display externalising behaviours such as aggression and dominance (Pellegrini, Bartini, & Brooks, 1999; Pellegrini & Long, 2002). Generally, studies show that bullying and proactive aggression (goal-oriented, calculated aggression motivated by an external reward such as dominance) is more common among boys, largely due to boys' acceptance of and positive attitudes towards bullying (Pellegrini & Long, 2002). In Australia, bullying increases temporarily when students transition from primary to secondary school as students find themselves among others they do not know and struggle to establish a "pecking order"; then bullying gradually reduces in the later years of schooling (Rigby, 1996b). Similar findings have been reported in the United States (Pellegrini, 2002).

Indeed, bullies demonstrating proactive aggression target victims to gain control over physical/social resources, allowing them to dominate the peer group to which they belong and further support bullying with positive attitudes to justify their behaviour (Menesini, Camodeca, & Nocentini, 2010; Pellegrini et al., 1999).

Students who bully have generally been found to be low in empathy, social and emotional skills, and self-efficacy, and tend to take a Machiavellian and socially competitive stance on school life, academic achievement and in friendships (Jolliffe & Farrington, 2006; Kokkinos & Kipritsi, 2012). The relationship between bullying and self-esteem is complex, with some research finding that students who bully others report average or high self-esteem or self-acceptance perhaps inflated due to their dominance over others (Olweus, 1993; Rigby & Bortolozzo, 2013; Rigby & Slee, 1993). In contrast, other research has found that children who bully have greater feelings of inadequacy related to academic achievement, popularity, physical appearance, school life and interpersonal relationships than those not involved in bullying (O'Moore & Kirkham, 2001). A recent study revealed that narcissism (i.e., grandiose self-view), particularly in combination with low self-esteem (i.e., fragile self-concept) is more predictive of bullying behaviours than self-esteem (Fanti & Henrich, 2015).

Social or group influence has an impact on aggressive and bullying behaviours. For example, boys with aggressive behaviours become more accepted in adolescence, and are perceived as "cool" (Rodkin & Hodges, 2003). Bullying behaviour may therefore be used to establish or

improve social standing (Bibou-Nakou, Tsiantis, Assimopoulos, Chatzilambou, & Giannakopolou, 2012). Social groups may be organised around bullying roles (Salmivalli et al., 1997), as children tend to associate with others who engage in a similar degree of bullying and fighting (Espelage, Holt, & Henkel, 2003).

Bullying Victimisation

There are a variety of individual and social-ecological factors that may place children at risk for bullying victimisation. Low self-esteem, fewer friends, age, and anxiety influence the likelihood that a child will be bullied (Kokkinos & Kipritsi, 2012; O'Moore & Kirkham, 2001). Boys tend to be bullied more often than girls, especially physically (Owens, Daly, & Slee, 2004). Children with low self-esteem, low emotional intelligence, or any difference in terms of appearance, race, ethnicity, education, or other characteristics that could be viewed unfavourably, may attract the attention of youth who bully (Kokkinos & Kipritsi, 2012; Martin, 2010).

Friendship has been recognised as a mediator of victimisation. The number of friends and having friends that belong to different peer groups predicts and buffers victimisation among students (Pellegrini et al., 1999). Negative school climate is also a contributing factor that places students more or less at risk for victimisation (Brighi, Guarini, Melotti, Galli, & Genta, 2012; Nickerson, Singleton, Schnurr, & Collen, 2014).

Bully-Victims

Bully-victims are children that both bully others and are bullied themselves. Boys are more likely to be bully-victims than girls, which may be because boys are more likely to bully and be bullied than girls (Veenstra et al., 2005). The bully-victim has been found to be anxious, aggressive, and hot-tempered and therefore, socially unaccepted, disliked and isolated (O'Moore & Kirkham, 2001; Terrazo Felipe, Ossorno García, Martín Barbarro, & Martínez Arias, 2011; Veenstra et al., 2005). Regarding academic performance, bully-victims are more likely to fail and repeat classes and have less academic future plans than victims (Terrazo Felipe et al., 2011).

Proactive Approaches to Bullying

Given the complexity of the individual and social-ecological factors that contribute to bullying, a comprehensive prevention model framework is critical. As part of this framework, a variety of proactive approaches can be used, including anti-bullying policies, professional development for school staff, social emotional learning programs and interventions, that encourage pro-social interactions between students.

Anti-bullying policy. It is generally agreed that an important framework for guiding schools' actions to address bullying effectively and consistently over time is to develop and implement an anti-bullying policy (Espelage & Poteat, 2012; Limber & Small, 2003). In Australia, guidelines relating to the development of anti-bullying policies are contained in a Federal Government Publication known as the National Safe Schools Framework (Ministerial Council on Education, Early Childhood Development and Youth Affairs, 2004). Anti-bullying policies adopted by schools may vary based upon state or territory authority requirements and may include: (a) the rights and responsibilities of all school community members to a safe environment; (b) a definition of bullying; (c) a statement regarding the unacceptability of bullying behaviour in any form; (d) explicit guidelines for staff, students, and parents about how to report and follow-up on bullying incidents; (e) relevant consequences for bullying behaviours; and (f) prevention and intervention strategies (Limber & Small, 2003; Nickerson, Cornell, Smith, & Furlong, 2013; Rigby, 1996a).

However, it may be that the nature and quality of anti-bullying policies is less important than how they are implemented (Sherer & Nickerson, 2010). Based on results for 38 primary schools in England, Woods and Wolke (2003) reported that the content and quality of anti-bullying policies bore no relationship to the prevalence of direct bullying behaviour. In fact, schools with the most

comprehensive anti-bullying policies had a significantly higher incidence of relational bullying. The authors conclude that inspection of school anti-bullying policies provides little guide to the amount of direct bullying behaviour in schools. Schools clearly have a responsibility to apply their policies, for example by making sure that members of the school community, teachers, students and parents are fully aware of its contents and the actions described in the policy in dealing with cases of bullying are actually carried out.

Professional development. Related to the anti-bullying policy, all school personnel (e.g., teachers, aides, bus drivers) should be prepared to recognise and respond to bullying, as overlooking bullying or failing to intervene sends the message that bullying is acceptable in school (Espelage & Swearer, 2003; Unnever & Cornell, 2003). Students are more willing to seek help for bullying and threats of violence if they perceive a supportive school climate where teachers are seen as respectful, caring, and interested in them (Eliot, Cornell, Gregory, & Fan, 2010). Therefore, it is important for schools to provide professional development that teaches school staff about the definition, prevalence, signs, and impact of bullying and victimisation, as well as strategies for prevention and intervention (Frey et al., 2005; Nickerson et al., 2013; Rigby, 2011a). In Australia, professional development related to bullying is carried out in schools in some States/Territories and is encouraged (but not required) by Educational Jurisdictions and also through interactive on-line programs; for example, in Victoria the Department of Education has developed a resource known as BullyStoppers that can be used by teachers (see http://www.education.vic.gov.au/about/programs/bullystoppers/Pages/default.aspx).

Social-emotional learning. Parallel with the growing attention to the problem of bullying is the recognition of the importance of social emotional learning (SEL), which has spread rapidly throughout the world (Hymel, Schonert-Reichl, & Miller, 2006). A basic premise of SEL is that these skills (e.g., self-awareness, social awareness, decision making, self-regulation) can be taught, similar to the teaching of academic skills. SEL builds social competence, reduces problem behaviour, and improves academic outcomes (Durlak, Weissberg, Dymniki, Taylor, & Schellinger, 2011). SEL programs that focus on bullying by teaching students a variety of relationship skills and strategies (e.g., making and keeping friends, coping with bullying, recognising bullying, using assertive behaviours to respond to bullying, reporting bullying to adults) have been associated with reductions in bullying, victimisation and destructive bystander behaviour (Brown, Low, Smith, & Haggerty, 2011; Frey et al., 2005; Frey, Hirschstein, Edstrom, & Snell, 2009). However, some assessments of SEL programs have produced inconsistent results. An evaluation of the impact of an SEL program in secondary schools in the Netherlands reported significant reductions in peer victimisation in the short run but not over a longer period (Gravesteijn, Diekstra, Petterson Dravesteijn, Diekstra, & Petterson, 2013). In England, an evaluation of Social Aspects of Emotional Learning (SEAL), an SEL-type program, showed a null effect on behaviour (Humphrey, Lendrum, & Wigelsworth, 2010). Therefore, effectiveness appears to depend on the fidelity of implementation.

Changing peer bystander behaviour. When peers actively support bullying, the behaviour increases significantly; conversely, actively defending victims is associated with decreased bullying (Salmivalli, Voeten, & Poskiparta, 2011). Observational studies have revealed that bystander intervention successfully abates victimisation more than 50% of the time (Craig, Pepler, & Atlas, 2000; O'Connell, Pepler, & Craig, 1999). Bystander interventions seek to promote defending behaviours among witnesses to bullying in order to stop it or mitigate its effects, such as actively trying to make the student bullying stop, reporting the incident to a trusted adult, or supporting, consoling, or befriending the student being victimised (Espelage, Green, & Polanin, 2012; Huitsing & Veenstra, 2012). A meta-analysis of school-based bullying prevention programs indicated that positive bystander behaviour increased for students in intervention compared to control conditions (Polanin, Espelage, & Pigott, 2012).

Latané and Darley's (1970) classic bystander intervention model provides a useful framework for the process that peers who witness bullying may need to go through in order to help (see Nickerson, Aloe, Livingston, & Feeley, 2014): notice the event, interpret the event as an emergency that requires help, accept responsibility for intervening, know how to intervene or provide help, and implement intervention decisions. Building interventions from this type of theoretical framework may be useful in teaching students how to identify and intervene in safe and appropriate ways as bystanders (see Rigby & Johnson, 2006).

Circle time. Circle Time (CT) has been used in schools across the world to bring students together, facilitate communication (Lang, 1998), and contribute to a school climate valuing respect for each individual within the school (Miller & Moran, 2007). Although specifics of this approach vary, there are some overarching themes in implementation, such as dedicating time to gathering groups of students together to build rapport and trust around a particular subject. In the Quality Circle approach, developed in the United Kingdom as a curricular approach to problem solving (Paul, Smith, & Blumberg, 2012), teachers follow a five-step model in each weekly session on a specific topic: meeting up, warming up, opening up, cheering up, and calming down (Mosley, 2009). The meetings are solution focused and explicitly teach and praise prosocial problem solving skills, behaviours, and positive attitudes (Mosley, 2009). In circle of friends, weekly adult-led meetings including six to eight volunteer peers from a child's class seek to encourage the child to reduce disruptive behaviour, engage in more acceptable behaviours, and form peer relationships (Cowie & Wallace, 2000; Sharp & Cowie, 1998). When implemented in a secondary setting, students reported significant changes in their views about bullying, with positive effects found at 1-year follow-up (Paul et al., 2012). CT has also been shown to boost students' self-worth, self-regulation, academics and pro-social behaviours (Kelly, 1999; Mary, 2014; Miller & Moran, 2007; Tominey & McClelland, 2011).

Peer support. Without good quality friendship and peer support as protective factors, victimisation persists and can be exacerbated (Pellegrini et al., 1999). In addition, cooperative group work and working with peers were identified as two aspects of effective programs in a meta-analysis (Ttofi & Farrington, 2011). Establishing school welcomers or peer orientation guides is an effective way to provide peer support to students entering a new environment who may be vulnerable to victimisation (Peterson & Rigby, 1999; Rigby, 1996a). For example, the School Welcomers Program, where Australian secondary students visited the primary school over a 5-week period to talk to future incoming students about ways of dealing with bullying and worked with peers to show them the new environment, received the most support from students as an effective anti-bullying strategy (Peterson & Rigby, 1999).

The befriending approach is based on the rationale that friendships reduce future victimisation and buffer against the negative consequences of peer victimisation (Boulton, Trueman, Chau, Whitehand, & Amatya, 1999; Hodges, Boivin, Vitaro, & Bukowski, 1999). Through after-school clubs and buddying (Cowie & Sharp, 1996), trained peer helpers offer companionship and friendship. A program evaluation conducted in Italy found that this approach overcame the typically observed increase of negative attitudes and reactions among peers towards victims evident in the control group, but it did not reduce the rate of bullying (Menesini, Codecasa, Benelli, & Cowie, 2003).

There is evidence from the United Kingdom to suggest that peer support systems benefit victims, peer helpers, and the entire school community (Cowie, 1998, 2000; Cowie & Wallace, 2000). Peer helpers perceived these interventions to be beneficial in increasing their sense of responsibility, involvement, and communication skills, and improving the overall school climate (Cowie, 1998; Naylor & Cowie, 1999). The majority (82%) of victims of bullying also reported finding the services helpful, with the most frequently reported benefit being that the peer support systems provide victims with the strengths to overcome the problem (Naylor & Cowie, 1999). In addition, students who are

aware of the peer support systems in their schools report that their school is friendly, they feel safer during classes, and they are less likely to worry about being bullied than students who are not aware of the peer support systems (Cowie, Hutson, Oztug, & Myers, 2008).

However, peer support techniques appeared to have limited success in reducing the levels of bullying (Cowie et al., 2008, Naylor & Cowie, 1999) or increasing the likelihood that bystanding peers would intervene on behalf of the victims (Menesini et al., 2003). In fact, one study revealed that the bullying problem was so severe that the work of peer helpers was ineffective (Cowie & Olafsson, 2000). It has been noted that more support from staff members, especially from male teachers, is needed (Naylor & Cowie, 1999); boys also need to be better represented as peer helpers and system users (Cowie, Naylor, Talamelli, Chauhan, & Smith, 2002). Unfortunately, research also found that peer helpers experienced some degree of hostility from the peer group (Cowie, 1998), which needs to be addressed when considering using these proactive approaches to peer support. The school psychologist could be helpful in integrating the peer support system into the larger culture of the school and supporting the peer helpers.

Use of Appropriate Methods of Interventions in Cases of Bullying

Clearly, proactive strategies employed by schools to reduce bullying are not in themselves entirely successful. Cases of bullying commonly arise and need to be addressed. The effectiveness of teacher interventions in cases of bullying has been examined in two ways: through student surveys and through the examination of recorded outcomes by teachers. Reports based on surveys of over 38,000 school children who have been bullied by their peers at school suggest that, in Australia, about 31 % of such students seek help from a teacher (Rigby, 1998). The "success" rate in reducing the bullying, based on student reports, has varied: 34 % in the USA (Nixon & Davis, 2011); 49 % in the Netherlands (Fekkes, Pijpers, & Verloove-Vanhorick, 2005); 49 % in Australia (Rigby, 1998); and 56 % in England (Smith & Shu, 2000). In some student reports, after having told a teacher was followed by the situation worsening. In Australia, 8 % of the students indicated that things got worse; in the United States 28 %.

Recent findings have suggested that the situation in Australia may be improving. Cross et al. (2009) found that among Australian schoolchildren aged 10–14 years, 16 % of girls and 17 % of boys had been bullied on a weekly basis. In a study conducted by Rigby (1998) approximately 10 years earlier, among students in the same age group 21.3 % of girls and 25.5 % of boys reported being bullied on a weekly basis. These comparisons suggested significant reductions in bullying in Australia for both boys and girls. A government-funded study undertaken with a large sample of Australian students by Rigby and Johnson (2016) has reported that the prevalence of bullying continued to reduce significantly between 2007 and 2015.

The current evidence suggests that there is considerable scope for improvement in interventions. The first requirement is that practitioners—whether teachers or psychologists—need to be aware of the variety of approaches that can be employed when teachers intervene in cases of bullying. It is important to understand their rationale, their reported effectiveness, and the circumstances in which they can be appropriately applied. There are six major methods of intervention, as described and evaluated in Rigby (2010, 2011a, 2013, 2014): direct sanctions, strengthening the victim, mediation, restorative approaches, the support group method, and the Method of Shared Concern.

Direct sanctions. Direct sanctions constitute the most widely adopted method of dealing with bullying in schools. This approach involves the imposition of consequences or punishments on students who are identified as being responsible for an act or for acts of bullying. Although physical punishment is still employed in some countries, its use in schools has become rare, and sometimes, as in Government schools in Australia, illegal. In England, direct sanctions typically include verbal reprimands, meetings with parents, temporary removals from class,

withdrawal of privileges, school community service, detentions and internal exclusion in a special room, short-term exclusion and permanent exclusion (Thompson & Smith, 2011). It is commonly argued that those who bully deserve to be punished and that the sanctions will act as a deterrent to further bullying on the part of the perpetrator(s) and deter others who become aware of what has happened. Thompson and Smith (2011) report that, according to teachers who have used this approach, it is successful in stopping the bullying in 62 % of cases. Ttofi and Farrington's (2011) meta-analysis also revealed that firm disciplinary sanctions were associated with reduced bullying.

Strengthening the victim. This approach aims at strengthening the victim so as to resist being bullied. Training may involve instruction in physical fighting skills, but more commonly (and acceptably by schools) in the development of appropriate social skills such as "fogging" (see Rigby, 2011a). This technique aims at discouraging would-be verbal aggressors by nonchalantly agreeing that they may believe what they are saying, but that it is of no concern. Its advantage lies in making it possible for the intended victim to prevent bullying from taking place. However, it may require considerable expert training by the psychologist working with the victim, and is not suitable for some cases when violence is threatened and the victim is incapacitated by extreme anxiety.

Mediation. This is a procedure aimed at resolving a conflict to which students may be invited to work with a trained mediator who may be a teacher, a counsellor/psychologist, or a peer (Cohen, 2005). Participation must be voluntary and the mediator a neutral facilitator. Studies have revealed that peer mediation may successfully resolve conflicts (Burrell, Zirbel, & Allen, 2003) and lead to significant and sustained reductions in playground aggression (Cunningham et al., 1998). In practice, however, children engaging in bullying are commonly not motivated to take part. Mediation requires that both parties involved agree to mediate the conflict in order to reach an agreement. This is often problematic in bullying situations as a victim is in a vulnerable position due to the power imbalance in bullying (Cowie & Wallace, 2000). Therefore, mediation should only be considered in bullying when a trained mediator has prepared each party, and when the individuals involved agree to working together to resolve the issue.

Restorative approaches. Restorative approaches constitute the second most employed anti-bullying strategies in schools in many countries, used in about 70 % of schools in England (Thompson & Smith, 2011). Restorative approaches require that the person who has bullied someone, termed the "offender" or "perpetrator," reflects upon his or her unacceptable behaviour, experiences a sense of remorse, and acts to restore a damaged relationship with both the victim and the school community. The application may take place (a) at a meeting with just the bully and the victim, (b) with a group or class of students involved in bullying behaviour, or (c) at a community conference attended by those involved in the bullying plus significant others, such as parents. Training in the use of this approach is required and support from the school community is very desirable (Thorsborne & Vinegrad, 2006). Reports from teachers in England claim success in stopping bullying using restorative practice in 68 % of cases in primary school and 77 % of cases in secondary school, a somewhat higher rate than that claimed for direct sanctions.

The support group method. This is a non-punitive approach to bullying developed in England by Robinson and Maines (2008) considered appropriate for use in cases of bullying conducted by, or with the support of, a group of students. According to Thompson and Smith (2011) in England it is being employed by approximately 10 % of schools. The victim is interviewed first to discover what has been happening, what effects the bullying has had, and who have been responsible. Next, the perpetrators are confronted at a group meeting with vivid evidence of the victim's distress. Those present at the meeting also include a number of students who have been selected because they are expected to be supportive of the victim. The victim is generally not pres-

ent. It is impressed upon everyone that they have a responsibility to improve the situation. Each student is required to say what he or she will do to make matters better for the victim. Reported outcomes indicate that the bullying is stopped in 77 % of cases in primary school and 68 % in secondary school. Of all the interventions so far assessed in England, the Support Group Method appears to be the most effective, according to the figures reported above from Thompson and Smith (2011). Some schools in Australia employ this method but as yet there is no published evidence on how widely it is used or with what outcomes.

The Method of Shared Concern. This is a multi-stage strategy devised originally by Swedish psychologist Pikas (2002). It is sometimes called the Pikas method. The method, with some minor variations, is being used in many countries, including Sweden, Spain, Scotland, Australia, and England. It is employed in about 5 % of schools in England (Thompson & Smith, 2011). Like the Support Group Method, it is a non-punitive approach for working with students who have been identified as bullying someone. It begins with a series of one-to-one interviews with members of the group suspected of engaging in bullying a particular person. At these meetings, the practitioner shares a concern for the targeted child, drawing upon what has already been noticed or reported without making accusations. The aim at this stage is to gain an acknowledgement from the suspected bully that there is a child who is having a hard time with peers and is clearly distressed. Once this has been achieved, the suspected bully is asked how he or she can help to improve the situation. Typically the interviewee makes a proposal to act in an acceptable way. What transpires is carefully monitored. Subsequently an interview is conducted with just the "victim" and then with the entire group of suspected bullies to formulate a further joint plan of action. Finally, the group meets with the victim and the problem is resolved through a process of mediation. This approach, when followed carefully, has been shown to be highly successful (Rigby, 2011b; Rigby & Griffiths, 2011).

Choosing the appropriate intervention in bullying depends on the case, the training and expertise of the school staff, and the school's acceptability of particular methods. For violent or criminal behaviour, direct sanctions need to be applied. If perpetrators of bullying are inclined to be remorseful, restorative approaches may be preferred. With group bullying, the Support Group Approach or the Method of Shared Concern may be best.

The Australian Context

Although many generalisations that have been made earlier about school bullying apply to countries throughout the world, there are differences in context that influences what happens, and can be made to happen, in particular countries. Bullying is prevalent in schools no matter where they are located geographically; however, there are major differences in the prevalence of peer victimisation between countries. In Sweden, 5 % of students were exposed to bullying at least two or three times a week, whereas for Lithuania, the figure was around 34 % (Due et al., 2009). Beyond differences or similarities in the extent of school bullying, knowledge of the historical and cultural contexts of a country may help us to appreciate what has been done with respect to bullying and what may be readily achieved.

Unlike the countries from which many of its European settlers came in the late eighteenth century, Australia is, in a sense, a young country. This is not to discount the importance of the indigenous population of Aboriginals who make up about 3 % of the Australian population and have lived in this country since time immemorial. Over the last hundred years the country has become a relatively successful multicultural environment with a substantial proportion of people from Asian, Southern European and Middle Eastern origins. In recent times, there have been few inter-ethnic conflicts, though one should recognise that the rate of peer victimisation among Aboriginal students is significantly above average, to which racist attitudes may make a significant contribution (Rigby, 2002).

Before the 1990s, little or no attention was paid to school bullying. The first systematic study of bullying in Australian schools was undertaken by Rigby and Slee (1991). At that time, the reactions of educational authorities and schools tended to be defensive. It was claimed either that no bullying or harassment was taking place or that the problem, if it existed, was being controlled through the use of behaviour management practices. Gradually, however, the severity and seriousness of the problem was recognised. In 1994, the Australian House of Representatives Standing Committee on Employment, Education and Training published a well-publicised booklet entitled *Sticks and Stones: A Report on Violence in Australian Schools*. In it the authors opined: "While overt acts of violence causing physical harm and damage may not be the overriding feature of Australian schools, the Committee is concerned at the apparent high levels of violence of bullying behaviours" (Australian Government, 1994, p. 11).

With the growing realisation of the problem came the recognition of the need for solutions. Stirred by the increasing publicity given to bullying in schools, educational authorities turned their attention to what could be done about it. An important milestone was the publication in Australia of the National Safe Schools Framework (Ministerial Council on Education, Early Childhood Development and Youth Affairs, 2004). This framework was developed under the aegis of the Australian Department of Education, Science and Training through contributions from relevant consultants in the area of bullying and school safety. It included an agreed set of guiding principles for promoting safe school environments and suggestions for strategies that schools might utilise. It was intended as a practical resource for schools in addressing problems associated with bullying and violence.

As noted earlier, some bullying involves physical violence, and the reduction of community violence is likely to impact the level of bullying in schools. Unfortunately, although lethal forms of violence have been decreasing in recent years in Australia, according to research undertaken by the Australian Institute of Criminology non-lethal violence has been increasing (Toumbourou et al., 2015). How violence may be effectively prevented in the Australian context has been the subject of a recent Australian publication on recommended policies, practices and solutions (Day & Fernandez, 2015).

The development and increasing usage of cyber technology has more recently provided a further dimension to the problem of bullying among young people. This has resulted in a continuing rise in studies of cyberbullying and proposed solutions about how cyberbullying can be countered. In this area, various national authorities, including Australian Communications and Media Authority (ACMA), the National Centre Against Bullying (NCAB), as well as by State and Territory Educational Authorities have taken the lead by providing schools with useful suggestions. The problem of school bullying is widely recognised as a serious one in Australia. National and State/Territory Educational Authorities and other institutional authorities are seeking to promote more effective ways of dealing with the problem.

Knowledge of what schools are doing to counter bullying is nevertheless fragmentary and there is little in the way of evaluation of what may be working. An exception is the Friendly Schools Program (Cross et al., 2009) which focuses mainly on the proactive or preventive, and has many merits. It is widely used in Australia as a means of improving children's peer relations. However, Ttofi and Farrington (2011), in their meta-analysis of anti-bullying programs, were not convinced of its effectiveness in significantly reducing peer victimisation. The search for methods to counter bullying in Australia is ongoing and supported by funding from the Australian Government (see https://www.education.gov.au/bullying-research-projects). For a list of useful resources for addressing bullying in Australia, see Table 1.

Roles for School Psychologists

School psychologists are on the frontlines of providing service to students in a school setting, and they are uniquely equipped to tackle issues of bullying through direct service with students and indirect

Table 1 Useful resources for addressing bullying in Australia

Manual
The National Safe Schools Framework (http://education.gov.au/national-safe-schools-framework-0)
Books
• Rigby, K. (2002). *Stop the bullying: a handbook for schools* (Revised, updated). Camberwell, Victoria: ACER
• Rigby, K. (2010). *Bullying interventions in schools: Six basic approaches*. Camberwell, VIC: ACER
Report
Rigby, K and Johnson, K. (2016) The prevalence and effectiveness of anti-bullying strategies in Australian schools. Adelaide, South Australia: School of Education, University of South Australia. This report is based upon surveys conducted with Australian government schools in 2014/2015. It draws upon data provided by schools, teachers, students, parents and educational leaders in providing a comprehensive account of how schools are tackling the problem of school bullying in Australia. Currently accessible at: www.kenrigby.net/School-Action
Websites and contacts
• Bullyingnoway (http://bullyingnoway.gov.au/)
• Ken Rigby's website: http://kenrigby.net/
• Kidshelpline (http://www.kidshelp.com.au/)
• The National Centre against Bullying(NCAB) (http://www.ncab.org.au/)
• Peer Support, Australia: http://peersupport.edu.au/the-program/overview/
Training DVDs and Vodcasts
• Readymade Productions The Method of Shared Concern http://www.ncab.org.au/
• Victorian Education Department: Bullystoppers http://www.education.vic.gov.au/about/programs/bullystoppers/Pages/default.aspx
• Loggerheads Production Six Methods of Intervention. http://www.loggerheadpublishing.net/store/p87/Bullying_in_Schools%3A_Six_Methods_of_intervention_DVD_Ref%3A_019-K.html
• Six Methods of Intervention: a series of presentations by Ken Rigby: https://fuse.education.vic.gov.au/pages/View.aspx?id=e59f885d-3d71-47ef-9e29-f0414147bf50&Source=%252fpages%252fResults.aspx%253fsb%253dKBNGModified%252bDESC%25252c%252bKBNGStarRating%252bDESC%2526tab%253dAll%2526p%253d10

service with teachers and parents (Diamanduros, Downs, & Jenkins, 2008). According to the Australian Psychological Society, school psychologists provide both direct and indirect service to students (Faulkner, 2007). Principals, teachers and school psychologists agree that school psychologists should provide direct service to students, contribute to programs for students in schools, provide support for teachers on various student concerns, and facilitate home-school collaboration (Thielking & Jimerson, 2006). School psychologists may be actively involved in bullying prevention and intervention through providing direct service to students at-risk, facilitating home-school collaboration, and consulting with school staff.

Direct service to students. One of the main functions of the school psychologist is to provide direct service to students in the form of counselling and other individualised supports. School-based counselling has been shown to be effective in helping students cope with being bullied (McElearney, Adamson, Shevlin, & Bunting, 2013). School psychologists are in an optimal position to identify children who need psychological support and provide the appropriate assistance, and these children may include bullies, victims, and bully-victims. School psychologists may use any number of individualised interventions with individual children who can be helped to cope more effectively with bullying and harassment (see Rigby, 2011a). Specific individualised counselling techniques may focus on students' internalising or externalising symptoms that may result from bullying. By building a relationship with a child who is being bullied, school psychologists may help the student feel better prepared to tackle instances of bullying. However, reaching out beyond the target child is important to provide sustainable changes for bullied children.

Home-school collaboration. As students may be identified as bullies or victims, home-school collaboration becomes increasingly important. On one hand, victims' families may feel as though the school is not doing enough for their children,

while the perpetrators' families may feel as though the school is unfairly labelling their child as a "bully". As such, the school psychologist can be a key player in helping families feel heard and part of the intervention process. For example, the Resilience Triple P manualised intervention focuses on home-school collaboration for families of bullied youngsters in Australia (Healy & Sanders, 2014). The intervention included parent training on ways to facilitate the development of children's pro-social skills. The students learnt specific social and emotional skills to assist in building pro-social relationships. Children whose families participated in the program were found to be less bullied over time, less distressed or depressed, and better accepted by their peers. Other research has shown that a comprehensive intervention that included a parent education component, in addition to changes at the school level, resulted in improved bullying awareness and specific interventions (i.e., tell the bully to stop; Meraviglia, Becker, Rosenbluth, Sanchez, & Robertson, 2003).

Consultation with school staff. As a member of the team of educators employed at each school, it is imperative for school psychologists to use intra-building and interdisciplinary relationships to develop school-wide approaches for bullying prevention and intervention. McGrath and Noble (2010) sought to identify factors and strategies to facilitate positive student relationships in school by evaluating schools in the Victorian Education Department who reported few bullying incidents compared to other schools. They identified four unique characteristics: effective and efficient school leadership teams, school-wide behaviour programs, intentionally promoting peer relationships through specific cooperative strategies, and placing high value on student well-being.

School psychologists have the opportunity to play a role in implementing any of these interventions by working closely with school administrators and teachers to advocate for the development of a team solely dedicated to assist in the development and implementation of anti-bullying policies. Additionally, the school psychologist can lead implementation efforts of other proactive approaches discussed above, such as professional development for school staff, social emotional learning programs, and interventions that encourage prosocial interactions between students. School psychologists can also conduct surveys to examine problem of bullying and lead program evaluation efforts. For example, in Australia the Australian Council for Educational Research (ACER) provides versions of the Peer Relations Assessment Questionnaire (PRAQ) for use with lower primary school students, older students, teachers and parents of school children (See http://www.kenrigby.net/01a-Questionnaires). These survey results can be helpful in not only assessing the prevalence of bullying, but also providing information on perceptions of the school climate (see Hamburger, Basile, & Vivolo, 2011; Nickerson, Singleton, et al., 2014; Olweus, 1993; Swearer, Espelage, & Napolitano, 2009). In addition, school psychologists can help develop the climate and systems within the school to encourage identification of bullying, such as anonymous tip hotlines, websites, or suggestion boxes (Brank et al., 2007), or peer-report methods to identify possible victims of bullying for further follow-up (Cornell & Mehta, 2011).

Conclusion

In conclusion, bullying is widely recognised as a serious problem in schools. Increasingly, research is revealing that involvement in bullying is associated with mental health problems that can persist long after a child leaves school. However, there is now persuasive evidence that bullying is reducing somewhat in prevalence, likely as a result of increased attention to the problem of bullying, and its prevention and intervention. In this chapter, six major methods of intervention, their rationale, and circumstances under which they may be used were discussed, including direct sanctions, strengthening the victim, mediation, restorative approaches, the support group method, and the Method of Shared Concern. Although there is still a long way to go before vulnerable children can feel safe from bullying

and harassment at school, using these approaches in a thoughtful manner based on the specifics of the circumstances is recommended. Given the knowledge and skills of school psychologists, it is clear that they play an important part in addressing this enduring problem by providing direct service to students at-risk, facilitating home-school collaboration, and consulting with school staff.

Online Bullying Test for School Staff

Although a great deal of knowledge about bullying in schools has been generated through research in many countries over the last two decades, teachers still hold myths and misconceptions about bullying. It is important to identify and correct them, as they can have implications for identifying and addressing bullying behaviour. Readers are encouraged to take this 40-item True/False Knowledge of Bullying Test devised for school staff drawing on reported research evidence, which may be found at http://www.kenrigby.net/00-The-Quiz (example True/False items include: Typically bullying occurs when no one is watching, Children with high self-esteem are less likely to bully others). The test is currently being used in Australian schools as part of an Australian Education Department Project, with some schools using the test as part of staff professional development. Feedback on the "correct" answers is immediately available after completing the test, together with references to the sources supporting the answers.

Test Yourself Quiz

In addition to taking the above bullying test, it may be useful to consider the following questions to apply the knowledge from this chapter to school psychology practice:

1. Given that bullying is associated with dominance, social status, and an abuse of power, how might schools contribute to a climate that facilitates or inhibits these behaviours?
2. Direct sanctions are a widely used approach to bullying incidents that has some evidence of effectiveness. What sanctions for bullying are most appropriate to implement in Australian schools?
3. Bullying is often witnessed by bystanders who do not intervene directly or indirectly. What approaches might you be used to encourage peers to take a more active stand?
4. How might developmental level, remorsefulness of the perpetrator, vulnerability of the target, and role of peers influence your decision-making in what approach to use to address bullying?
5. How should school psychologists involve parents and families in bullying prevention efforts?

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Evidence-Based Parenting Programs: Integrating Science into School-Based Practice

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Introduction

The school is a social system for the purpose of educating children. Although academic outcomes are core business, Australian schools are increasingly concerned about the behavioural, emotional and social wellbeing of students (e.g. Australian Government Department of Education and Training 2016)). Children need to regulate their own behaviour and emotions to be able to learn at school and to ensure they do not disrupt other student's learning. Children's development of self-regulatory skills has been found to predict health, wealth, happiness and academic achievement many years later (Moffitt et al., 2011). Thus schools and teachers have a stake in children's development of self-regulatory skills both for the purpose of current classroom management and long-term societal good.

The quality of parenting children receive has great impact on children's development of self-regulatory skills and their ongoing wellbeing. Exposure to competent parenting affords children many ongoing advantages including ability to regulate emotions (Graziano, Calkins, & Keane, 2011), better social and cognitive development (Guajardo, Snyder, & Petersen, 2009), accelerated language development, school readiness, higher academic achievement, reduced risk of antisocial behaviour, improved physical health and an increased likelihood of involvement in higher education (Gutman & Feinstein, 2010; Moffitt et al., 2011; Stack, Serbin, Enns, Ruttle, & Barrieau, 2010). Given the profound influence parents have on children's ongoing development and readiness to learn at school, it is in the interests of schools to ensure that children receive high quality parenting.

Student behaviour problems in the classroom are a contributing factor in teacher stress and burnout (Friedman, 1995; Hastings & Bham, 2003). Parental involvement in parenting programs offers an additional opportunity for children to improve their behaviour and self-management at school. In this chapter, we will review the relevance of parenting and effectiveness of evidence-based parenting programs in producing positive academic, behavioural, social and emotional outcomes for children. We will describe a system for implementing parent programs in a school system and provide case example of an individual family. We will then discuss enablers and barriers to implementing parenting programs in schools and practical applications for school psychologists and guidance officers.

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Incidence of Child Behavioural and Emotional Problems

According to the National Longitudinal Study of Australian Children, up to 24 % of children have borderline or clinically significant behavioural or emotional problems (Bayer et al., 2011). Unfortunately, childhood emotional and behavioural problems such as defiance, impulsivity, and aggression, are relatively stable and associated with elevated risk for problems such as conduct disorder, substance abuse, and delinquency into adulthood (Reid, Patterson, & Snyder, 2002; Rowe, Costello, Angold, Copeland, & Maughan, 2010). If left unaddressed, these behaviour problems do not limit themselves to one domain: their reach often extends to children's social and academic development, impacting children's risk for peer rejection, academic underachievement, school disengagement and drop out (Dishion, Loeber, Stouthamer-Loeber, & Patterson, 1984; Fredricks, Blumenfeld, & Paris, 2004; Stipek & Miles, 2008). Emotional and behaviour problems are associated with academic underachievement in a bidirectional and cumulative manner (See Sandler, Schoenfelder, Wolchik, & MacKinnon, 2011 for review). Thus, early emotional and behavioural problems can produce a negative developmental cascade resulting in more behaviour problems and poorer academic functioning over time. The negative impact of emotional and behavioural problems across domains and the impact of these problems on other classmates, teachers and the broader school climate warrant early prevention and intervention efforts.

We will now look specifically at the influence of parenting on children functioning in behavioural, academic and social domains.

Parenting and Children's Emotional and Behavioural Problems

The impact of parenting on the development and maintenance of children's emotional and behavioural problems is well established. These associations are grounded in theory (e.g., Bandura, 1977; Baumrind, 1966; Patterson, Reid, & Dishion, 1992) and supported by substantial correlational and experimental research (e.g., Acker & O'Leary, 1996; Del Vecchio & Rhoades, 2010; Hoeve et al., 2009; Snyder, Edwards, McGraw, Kilgore, & Holton, 1994). Baumrind's (1966) conceptualization of parenting as a combination of responsiveness and demandingness highlighted the importance of both warmth and structure for children's development. Baumrind's initial concept of parenting style was groundbreaking; however, our understanding of the impact of parenting on children's development has since become much more sophisticated. Research on social learning theory, influenced by Bandura's work on modelling (1977), demonstrated that children learn negative behaviours directly through experiencing reinforcing consequences, and indirectly through their observations of other's experiences (e.g. vicarious learning). Coercion Theory (Patterson et al., 1992) advanced Bandura's work by emphasizing the role of coercive exchanges between parents and their children in the development and maintenance of children's behaviour problems. Within these coercive exchanges, a parent and child escalate their aversive behaviour until either the parent or child capitulates. Consequently, both the escalated aversive behaviour and the capitulation are negatively reinforced. Over time, these coercive exchanges can become habitual patterns of interactions between children and their parents (Granic & Patterson, 2006).

Central to these approaches is the importance of parents' use of overly harsh or permissive discipline as mechanisms by which children learn to engage in non-compliant and oppositional behaviour. There are numerous empirical studies linking dysfunctional parenting practices, such as overly harsh, coercive, and permissive parenting, to children's emotional and behavioural problems (Bayer et al., 2011: see McKee, Colletti, Rakow, Jones, & Forehand, 2008 for review). Moreover, in treatment outcome studies, the reduction of ineffective parenting is directly related to the reduction of children's externalizing problems (Chronis-Tuscano et al., 2011; Hanisch, Hautmann, Plück, Eichelberger, &

Döpfner, 2014). On the other hand, responsive parenting and positive parent–child interactions are a protective factor against the development of children's emotional and behavioural problems (Zemp, Merrilees, & Bodenmann, 2014) and buffer against adversity, even in high-risk families, to help prevent externalizing behaviours and academic problems (Lanza, Rhoades, Nix, & Greenberg, 2010; Odgers et al., 2012). Consequently, the targeting of parenting practices is a primary method of intervention for the reduction of children's emotional and behavioural problems.

Parenting and Children's Classroom Behaviour

Children's behaviour problems at home often extend to the school domain. Children with behaviour problems are more likely to model harsh or hostile interactions in the classroom if they observe and experience harsh or hostile parenting techniques (Valiente, Lemery-Chalfant, & Reiser, 2007). Through reinforcement of negative behaviour, children with behaviour problems learn to use negative behaviours to coerce or control interactions first with their parents and then others (Snyder et al., 1994). Furthermore, children with behaviour problems generally have a limited number of prosocial behaviours in their repertoire and are more likely to experience rejection by teachers (Sandler et al., 2011; Walker, 1995). Unfortunately, children's behaviour problems in schools not only result in negative outcomes for the disruptive child; they can also disrupt and impede learning and skill acquisition for classmates (McCahill, Healy, Lydon, & Ramey, 2014). Alternatively, children whose parents model warm and responsive interactions are more likely to model similar pro-social behaviours (Odgers et al., 2012). Moreover, effective parenting increases children's self-regulations skills, which are negatively related to children's behaviour problems (Valiente et al., 2007). Consequently, working with parents is an important means of improving children's behaviour in the classroom as well as at home.

Parenting programs that aim to improve the parent–child relationship, compliance, and decrease conduct problems have shown generalizations to improving children's classroom behaviour (McNeil, Eyberg, Hembree Eisenstadt, Newcomb, & Funderburk, 1991; Reid, Webster-Stratton, & Baydar, 2004). For example, in a study by McTaggart and Sanders (2003), children whose parents received Group Triple P (discussed later in chapter) showed significantly greater improvements in teachers' ratings of frequency and intensity of problem behaviours than did children in the control group, and these improvements were sustained at a 6-month follow up. Thus, parenting programs, such as Triple-P, can improve children's behaviour sufficiently to achieve clinically reliable change in children's behaviour at school.

Parenting and Children's Educational Attainment

Effective parenting practices are not only critical to children's positive behavioural outcomes, but also to children's academic success. In a longitudinal study, children whose parents were both firm and supportive had better academic performance and school engagement than their peers (Steinberg, Lamborn, Dornbusch, & Darling, 1992). Moreover, children who demonstrate academic success tend to have parents who use responsive parenting techniques including conveying appropriate academic expectations, employing the use of scaffolding in academic tasks, and encouraging children's autonomy (Froiland, Peterson, & Davison, 2013). In comparison, authoritarian parenting and parent–child conflict have been associated with lower school satisfaction and poor academic outcomes for children (Pasternak, 2012; Smokowski, Bacallao, Cotter, & Evans, 2014).

Parenting may impact children's academic outcomes through its strong effect on children's compliance and development of self-regulation. Compliance and self-regulation skills are strongly related to children's success in school, and specifically related to student's cognitive engagement,

attentiveness, and inhibitory control, factors that are highly correlated with academic performance (Eisenberg et al., 2005; Graziano et al., 2011; Moffitt et al., 2011). Children's behavioural compliance is also associated with academic achievement through increased homework completion, a major factor for children's academic success (Hawkins & Axelrod, 2008). Thus, effective parenting reinforces and supports children's compliance as a pathway to children's successful engagement in school.

Parenting and Children's Peer Relationships

Parenting plays a key role in the ongoing development of children's peer skills and relationships with other children at school. McDowell and Parke (2009) found three distinct ways in which parents influence children's social skills and relationships. The first way is through their own relationships with their children. The parent–child relationship has been described as the template through which children learn social and emotional skills needed for all other relationships (Parke & Ladd, 1992). Parenting which is warm and supportive, but not overly controlling, predicts higher social competence and peer acceptance over time in primary school children (McDowell, Parke, & Wang, 2003). A second main way in which parents influence children's peer relationships is through actively teaching children how to deal with peer issues (McDowell & Parke, 2009). A recent pilot study found that parental coaching of children with ADHD improved children's social skills, friendships and peer acceptance (Mikami, Lerner, Griggs, McGrath, & Calhoun, 2010). The third way in which parents influence their child's social relationships is through providing opportunities for peer interaction through play-dates, extracurricular activities and even choice of neighbourhood and school (McDowell & Parke, 2009). McDowell and Parke found that all three of these paths of parental influence predict children's social competence with their peers, which in turn predicts children's acceptance by peers over time.

Parenting also affects children's risk of being bullied at school by peers. In a meta-analytic review, Lereya, Samara, and Wolke (2013) concluded that warm, supportive parenting was a protective factor, and negative parenting was a risk factor for children's victimization by peers. Healy, Sanders, and Iyer (2015) defined a set of parenting skills called *facilitative parenting* which, in combination with children's social and emotional behaviour, discriminated children reported by teachers to be bullied from those who were not. Facilitative parenting combines warm relating; enabling of child independence (i.e. not being over-controlling); coaching, providing opportunities for children to build friendships; plus effective communication with the school. Healy and Sanders (2014) conducted a randomized controlled trial of a family intervention, Resilience Triple P (see case study later in chapter), with children bullied by peers. Resilience Triple P combines facilitative parenting training with coaching children in peer social and emotional skills. Children whose families received Resilience Triple P became less victimized, less distressed by peer behaviour, less depressed and liked school more over time, compared with children in the control group. Teachers reported that children who participated in the program became better accepted by their peers over time. This demonstrates that a parenting program can assist children in overcoming difficulties with peers at school.

Evidence suggests that parenting may also influence children's perpetration of aggression and bullying of peers. Parents of children who bully tend to have higher levels of harsh, hostile parenting, lower levels of warmth and laxness in supervision (Atik & Güneri, 2013; Demaray & Malecki, 2003; Loeber & Dishion, 1984). These same parenting styles are associated with child conduct and behaviour problems (e.g. de Graaf, Speetjens, Smit, de Wolff, & Tavecchio, 2008). There is substantial evidence that parenting programs (such as Standard Triple P) impact on children's conduct problems (Sanders, Kirby, Tellegen, & Day, 2014). It may be, then, that parenting programs that reduce incidence of child conduct problems may also help reduce bullying.

However, as yet there have been no controlled trials specifically investigating impact of parenting programs on children bullying at school.

How Effective Are Parenting Programs?

Parenting programs focus on strengthening parenting skills to help parents manage children's behaviour problems and increase positive parent–child interactions. These programs are guided by behavioural principles and work to help parents implement consistent, predictable, and effective parenting strategies. The efficacy of evidence-based parenting programs as a treatment of children's emotional and behavioural problems is well established (Eyberg, Nelson, & Boggs, 2008; Kaminski, Valle, Filene, & Boyle, 2008; Maughan, Christiansen, Jenson, Olympia, & Clark, 2005; Reyno & McGrath, 2006). A meta-analytic review of published evaluations of parenting programs found a medium effect on parent and child behaviours, corresponding to a 72% and 65% success rate, respectively (Kaminski et al., 2008). Six different manualized parenting programs for disruptive behaviour in children are considered "evidence- based" (Eyberg et al., 2008). The two best known, most extensively evaluated and widely disseminated programs are the Incredible Years developed by Carolyn Webster Stratton (University of Washington) and the Triple P-Positive Parenting Program developed by Sanders and colleagues (The University of Queensland). Both programs teach parenting which is warm and responsive to the child, encourages positive behaviour and sets clear limits for problem behaviour, and both programs have compiled an impressive evidence base to support their use in school systems.

Incredible Years is a group intervention for parents of children 0–12 years and is typically offered over the course of 12–20 weekly 2-h group sessions. There are several variants of Incredible Years that differ on their targeted age range and program focus (e.g. behaviour management, problem-solving, social skills), and it can be offered as a prevention or treatment. Incredible Years is supported by several independent meta-analyses with the most comprehensive one conducted by Menting, Orobio de Castro, and Matthys (2013). Menting and colleagues reviewed the effects of Incredible Years in 50 studies and reported positive intervention effects across outcomes and informants. They reported a small to medium effect on disruptive child behaviour across informants. Treatment studies were associated with larger effects than prevention studies. Initial severity of child behaviour was the strongest predictor of intervention effects, with larger effects for studies including more severe cases. Incredible Years has been implemented in over 20 counties around the world including Australia.

Triple P is a system of programs, which vary in intensity and delivery according to the needs of different parents. There are versions of the program available for children, teen-agers and children with disabilities. The program has also been applied to specific issues in children (e.g. feeding difficulties, children with chronic illness) and for specific parenting roles (e.g. working parents, grand-parents, foster parents). The Triple P multilevel system of intervention is supported by several meta-analyses, the most comprehensive of which was conducted by Sanders et al. (2014), which reviewed the effects of Triple P in over 100 studies involving over 16,000 families. There were significant medium short-term effects for children's social, emotional and behavioural outcomes; parenting practices; parenting satisfaction and efficacy; parental stress and depression; parental relationship and child observational data. As expected larger effects sizes were found for treatment studies than universal prevention programs, for more intensive levels of intervention, and for children with more severe problems. Triple P has clearly documented intervention effects when group programs have been delivered within the school system (e.g. Fives, Pursell, Heary, Nic Gabhainn, & Canavan, 2014) and has been effectively deployed in many different cultural contexts, including ethnically diverse populations in Australasia, United Kingdom, North America, Western Europe, Middle East, South America, Asia, and with

Indigenous parents in Australia, Canada, New Zealand and the United States.

The impacts of evidence-based parenting programs on children's emotional and behavioural problems are clearly demonstrated. Disseminating parenting programs at a broader level in the community is a powerful and cost-effective way to improve mental health and child adjustment at a society level (Sanders, 2003). The efficacy of parenting programs can be increased by reaching beyond the small number of families seen at mental health clinics, to providing parenting programs at a community level through schools. A school is a central hub in a community and is an excellent choice of venue to reach the majority of parents and children in a given geographical area.

Delivering Parenting Programs in the School Context

Schools can enhance social, behavioural and educational outcomes for children by promoting better engagement with parents and by providing a comprehensive system of parenting support. The Triple P-Positive Parenting Program is a powerful example of a system of parenting support that can, and is, delivered in schools. It is a preventively oriented multi-level system that aims to promote positive, caring relationships between parents and children, and to help parents develop effective strategies for dealing with a variety of childhood behavioural and emotional problems and developmental issues (Sanders, 2012).

Triple P system draws on social learning theory (Bandura, 1977; Patterson et al., 1992), applied behaviour analysis (Baer, Wolf, & Risley, 1968), research on child development and developmental psychopathology (Hart & Risley, 1995; Rutter, 1985), social information processing models and public health principles. It has many distinguishing features in its flexibility, varied delivery modalities, multi-disciplinary approach, and focus on self-regulation and generalization of parenting skills. Triple P teaches parents strategies to encourage their child's social and language skills, emotional self-regulation, independence and problem-solving. Attainment of these skills promotes family harmony, reduces parent–child conflict and risk of child maltreatment, fosters successful peer relationships, and prepares children for successful experiences at school and beyond.

The school provides an ideal context for the delivery of a multilevel system of parenting support such as Triple P. Figure 1 summarizes the multi-level Triple P approach, which aims to provide the "minimally sufficient" effective intervention to each family in order to maximize efficiency and ensure that support is available to all parents.

Level 1: Universal Triple P aims to use health promotion strategies to deter the onset of child behaviour problems by: promoting positive parenting practices and decreasing dysfunctional parenting in the community; increasing parents' receptivity towards participating in a parenting program; de-stigmatizing help-seeking for parenting issues; increasing the visibility and reach of the program; and countering alarmist or parent-blaming messages in the media. A communication strategy coordinated locally through a school could include a "Stay Positive" website, posters, brochures, word of mouth parent to parent advocacy and strong support by the school principal endorsing parental enrolment.

Level 2: Selected Triple P/Brief Primary Care Triple P is delivered through brief 10–20 min individual sessions on a specific concern (e.g., disobedience, homework) or a 90-min group seminar. The seminar program is particularly useful as a universal transition program for parents enrolling their child in school, as well as a refresher course for parents who have completed a higher level of intervention such as Group Triple P.

Level 3: Primary Care Triple P/Discussion Groups comprise a more intensive (e.g., 3–4 half hour individual sessions or 2-h discussion groups), selective prevention strategy targeting parents who have mild and relatively discrete concerns about their child's behaviour or development. This intervention level incorporates active skills training and the selective use of parenting tip sheets or workbooks covering common problems.

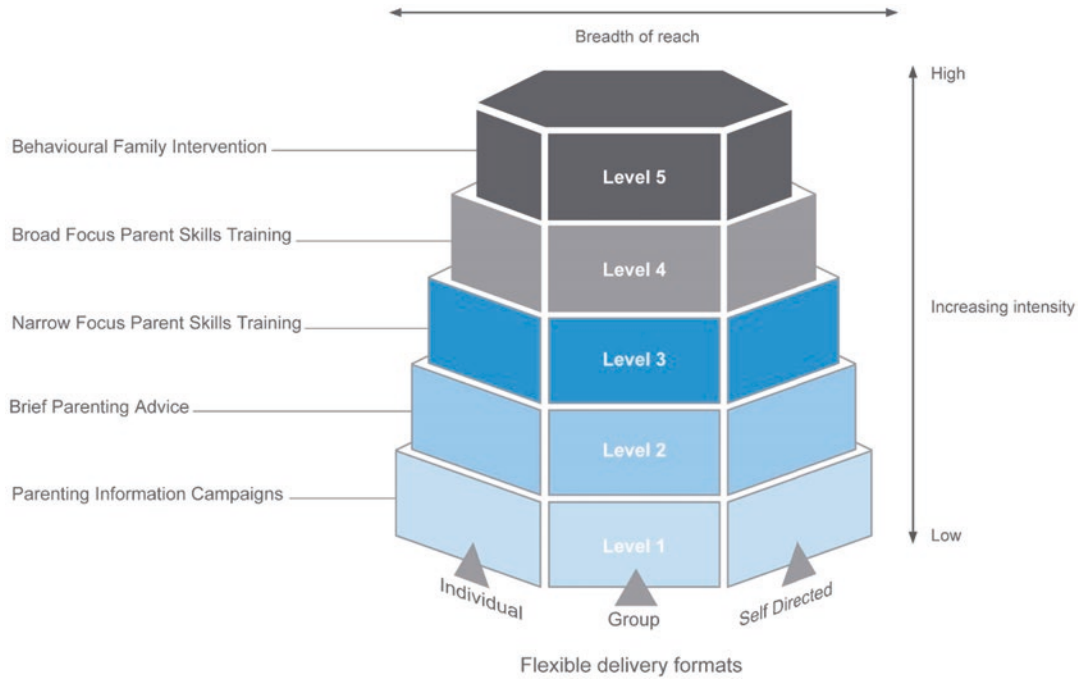

Fig. 1 The multi-level approach of Triple P (Positive Parenting Program)

Level 4: Standard/Group/Self-Directed Triple P or Triple P Online Standard target families of higher risk children identified as having detectable sub-clinical problems, or who meet diagnostic criteria, with the aim of preventing the progression of problem behaviour. Group (e.g., five 2-h groups plus three brief telephone consultations) and self-directed (a 10-session workbook) variants at this level of intervention can also be offered as an indicated prevention approach targeting an entire population to improve parenting capacity and identify individual children at risk. Parents are taught a variety of child management skills including: monitoring problem behaviour; providing praise and attention for desirable behaviour; arranging engaging activities in high-risk situations; establishing limits and rules; giving clear, calm instructions; and backing up instructions with logical consequences, quiet time (non-exclusionary time-out) and time-out. Parents learn to apply skills both at home and in the community, and to generalize and maintain parenting skills across settings and over time. Although all principles and strategies are introduced, content is individually tailored as families develop their own goals and select strategies to form their own personalized parenting plans.

Level 5: Enhanced Triple P is an indicated level of intervention for families with additional risk factors that have not changed as a result of a lower level of intervention. It extends the intervention to include up to five modules (three 60–90-min sessions each) that focus on areas such as partner support, mood management and stress coping skills. Usually, at this level of intervention, children have behaviour problems that are complicated by additional family adversity factors. Families typically complete a Level 3 or 4 intervention prior to Level 5, but practitioners may run Level 5 sessions concurrently with, or even prior to, parenting sessions based on their understanding of family need.

Case Example of Implementing Parenting Program in a School Context

Presenting problem. Leanne (mother) and Oscar (10 years) were referred to the school psychologist

by the teacher who reported that Oscar was frequently in trouble for fighting with other students and had been suspended from school several times recently. Leanne had complained to the school many times about other children provoking Oscar. At the initial interview Oscar explained that another boy kept teasing him in class and in the playground. He called him "fat" and "gay", made derogatory remarks about Oscar's mother and sister, and tried to get Oscar into trouble in class by telling the teacher that Oscar had done things which he had not. Oscar felt he had to fight the other boy when he said mean things about his family. Leanne explained that she did not want Oscar to be suspended but felt Oscar had to do something to discourage the other boy, so was forced to sometimes get into fights. She explained that both Oscar and the other boy were in a small class for children who needed to catch up with their schoolwork, so they saw a lot of each other at school.

Prior to the intervention, Oscar scored in the clinically elevated range for a self-report[1] of victimization and for being upset about this peer behaviour. He scored in the clinically low range for friendedness. Questionnaires completed by Leanne placed Oscar in the clinically elevated range for depressive symptoms and peer problems. Leanne rated herself as low on facilitative parenting skills compared with other parents.

Formulation and goals for intervention. Oscar's presentation was consistent with him having problems with peers. Oscar also scored low on friendedness, a protective factor against bullying (Fox & Boulton, 2006). Leanne's report of Oscar's elevated symptoms of depression is quite common for children bullied by peers. From Oscar's, Leanne's and the teacher's reports, the way Oscar dealt with peer behaviour was consistent with "provocative victim" behaviour: he tended to lash out emotionally and aggressively to behaviour he did not like, which can lead to worse victimization over time (Spence, De Young, Toon, & Bond, 2009). The primary goals for intervention were to strengthen Oscar's friendships and ability to deal with peer provocation through support and coaching by his mother.

Intervention program. The Resilience Triple P program provided a good match to the problems Oscar and Leanne were experiencing. *Resilience Triple P* is a manualized (Level 4) family intervention designed to address known risk and protective factors for children bullied by peers. The program includes four sessions for parents and four sessions for children with their parents present. The program is designed for children who respond aggressively, as well as for children who respond passively, to peer provocation. Children's sessions teach specific behavioural and cognitive skills for play and friendship, everyday body language, interpreting and responding to aversive peer behaviour and resolving conflicts (Healy & Sanders, in press). Parent sessions focus on facilitative parenting strategies for maintaining a warm parent–child relationship, supporting children's peer relationships, addressing problem behaviour, coaching effective responses to bullying and conflict, and communicating with school staff. Resilience Triple P has been demonstrated to reduce children's victimization, distress from peer behaviour, depressive symptoms and aggressive behaviour towards peers (Healy & Sanders, 2014), which are all appropriate goals for Oscar.

During her participation in the program, Leanne learnt positive parenting strategies to improve her relationships with Oscar, manage Oscar's behaviour and to coach Oscar in skills in relating to his peers and coping with difficult peer behaviour. Leanne worked out a calming down plan for herself and Oscar which involved them going outside and walking around or kicking a ball around for a few minutes when upset at home. Leanne started using logical consequences when Oscar did not do as asked—for instance, if he did not go to bed after being given a wind-up instruction a few minutes before the agreed time, Leanne would turn off the television or the game. Leanne and Oscar started spending more time

[1]Assessed by scales including Things Kids Do, Strengths and Difficulties Questionnaire (Goodman, 1999) and the Preschool Feeling Checklist (Luby, Heffelfinger, Mrakotsky, & Hildebrand, 1999).

together including having afternoon tea together after school, and Leanne sometimes joined in with Oscar when he was playing a computer game. Leanne signed Oscar up with his local football club. After working out a management plan, Leanne started allowing Oscar to invite friends over. She had previously avoided this because of previous problems with managing the boys' behaviour, but felt better equipped to manage with the new parenting strategies.

With Leanne's help, Oscar learnt to respond calmly to insults the other boy commonly used against him. This involved work on how to interpret these insults as well as practice in standing up for himself with words. For instance Oscar decided that he was quite big for his age but that this was "a good size for footy" and practised saying "yeah, good padding for footy" when called fat. Oscar decided he was too young to worry about being gay and decided to interpret it as "happy". Leanne also had a quiet word to Oscar's teacher to explain what Oscar was doing and request her support. Leanne reported that over a few weeks Oscar's teacher noticed him staying calm in the face of provocation and gave him a special award. Over a few weeks, Oscar reported the other boy was teasing less and less. He kept busy playing football with other friends at lunchtime.

Follow-up assessment. After completing Resilience Triple P, Oscar's reports of victimization by peers and how upset he felt about this had greatly reduced since the initial assessment. Oscar also reported having more friends and being more involved in play. Leanne reported fewer symptoms of depression for Oscar.[2] She also reported that Oscar's teacher had noticed an improvement in Oscar's focus in class. This resulted in Oscar returning to his regular class for morning subjects, which meant Oscar spent less time with the boy who provoked him, and more time with friends. Oscar received an award for "best and fairest" on one of the inter-school football competitions. At the time of writing this report, there had been no further incidents of aggression, nor suspension from school.

Summary. Leanne and Oscar presented with concerns about Oscar being provoked by another boy at school. Oscar's aggressive responses to the other boy's taunting had resulted in Oscar being suspended from school for fighting. The intervention enabled Oscar to learn how to manage his emotions and deal with provocation, through the support of his mother. Oscar and Leanne worked on Oscar's friendships through play-dates, playing football at lunchtime and joining the local football club. Leanne's communication with the teacher also changed. Over the time she did the program, Leanne complained less, and reported to the teacher the positive strategies Oscar was using. This may have helped the teacher understand the behaviour Oscar was dealing with and to encourage his efforts to manage his responses. Leanne and Oscar reported several additional positive spin-offs including improvements in Oscar's academic focus and some re-integration with his regular class, as well as his success with football. These changes are likely to help sustain the progress he has made.

Enablers and Barriers to Successful Implementation

There are enablers and barriers to successful implementation of parenting programs at the levels of school, individual practitioner and individual parents. We will discuss each of these in turn and provide practical suggestions for enabling parent participation. The level of school support and, specifically, support from the principal is central in determining how the value and ease of involvement in programs for both school staff and parents. The principal is tasked with identifying a workforce to implement parenting programs—which may involve different staff in different levels of the program. For instance, some schools

[2]Depressive symptoms following bullying can continue for months or years afterwards, and children who are depressed are at heightened risk for being bullied. Therefore, it is important to continue monitoring depressive symptoms if they continue to be elevated following an intervention like Resilience Triple P.

use brief parenting seminars delivered by the school psychologist as part of parent induction. More intensive parenting programs are offered by a variety of school well-being staff including school psychologists. Classroom teachers may be able to provide specific parenting advice when requested.

There are also factors to do with individual staff that influence whether a parenting program is implemented. Shapiro, Prinz, and Sanders (2012) examined barriers to implementation by practitioners trained in delivering Triple P. Practitioners were more likely to deliver the program if they perceived it would benefit children and families, and they felt confident in delivering it. Availability of ongoing professional support increased their likelihood of offering the program. A "good fit" between program implementation and their other duties also helped rather than it being an "extra" duty. Though occasionally schools employ staff in a parent liaison role, more usually school psychologists' and guidance officers' roles are most consistent with implementation of parenting programs.

Despite the great potential benefits of parenting programs to improve outcomes for parents and children, practitioners can be challenged to recruit and retain parents in programs (Mytton, Ingram, Manns, & Thomas, 2014). In any setting, practitioners can maximize recruitment by considering factors that either enable participation or might be barriers to involvement. Research has identified several types of enablers and barriers that affect parents' participation in parenting programs. These include practical constraints, parents' attitudes and perceptions, and social and cultural factors. These are each reviewed below.

Practical constraints are often cited as reasons that prevent parents from participation in a program. Parents often cite timing of courses and scheduling conflict as a reason for not attending a program (Spoth & Redmond, 2000). Parents who work may prefer evenings (Mytton et al., 2014), and some schools provide this option. For parents of school-aged children who are not working, school hours may provide the best option for care of children. Parents also cite access and suitability of the venue as factors influencing their decision to attend (Mytton et al., 2014); thus, holding parenting programs in schools has the advantage of being familiar and convenient. There are some mixed findings in the literature about whether cost of a program is a barrier to participation (Hindman, Brooks, & van der Zwan, 2012; Spoth & Redmond, 1995), and this probably depends on the affordability of the program relative to income. Practical support such as providing transport, childcare and refreshments can also encourage and enable parents to participate (Saylor, Elksnin, Farah, & Pope, 1990).

Family and cultural factors can also impact on an individual parent's decision to participate. The complex and chaotic lifestyles of some families can prevent participation—including crises, house-moves and lack of support (Mytton et al., 2014). Parents can also be discouraged from participating if they perceive negative attitudes to a program by family and friends (Fontana, Fleischman, McCarton, Meltzer, & Ruff, 1989). Unfortunately, because parenting programs are often recommended or even mandated for vulnerable parents with established serious problems, parenting programs can gain a stigma of being intended for "bad parents". Triple P provides an example of how this stigmatization can be addressed by incorporating many levels of intensity of intervention which make the strategies relevant to all parents, not just to a high-need group. Large-scale population roll-outs of Triple P have incorporated the "Stay Positive" message through radio, newspaper, television and internet to normalize participation in parenting programs (Sanders et al., 2008). This "contagion effect" of parents being influenced by each others' positive perception of a program can be used to build participation in a program in a school or community over time. Population trials of Triple P have found the best predictor of a parent doing Triple P is knowing another parent who has done Triple P (Sanders et al., 2008). Schools can use this over time by asking parents who have had a positive experience with the program to "spread the word" and by collecting parent testimonials about their experiences with the program.

Barriers and enablers of parental participation differ in different communities (Spoth, Redmond,

Hockaday & Shin, 1996). It is therefore important when planning to offer a parenting program to consult with parents on what would enable their participation. However, some general suggestions for enabling participating include are:

1. Choose a program that is demonstrated to be effective and present benefits to parents.
2. Keep communication about the program clear and simple.
3. Consult with community about timing and location. Plan day courses to correspond with drop-off or pick-up times. Consider offering occasional evening courses for working parents.
4. Plan more than one group over time at a school to build a positive reputation.
5. Use a variety of forums to inform parents—school website, flyers, school newsletter, bulletin board, through teachers.
6. Gather parent testimonials and use these in future promotion.
7. Inform teachers of benefits of program and request their help in informing parents.
8. Offer refreshments and, for best attendance, child-care.

Practical and Ethical Considerations in Implementing Parenting Programs in Australia

School psychologists and guidance officers who deliver parenting programs in schools are bound by the professional code of conduct of their profession and their employer. This includes maintaining confidentiality and duty of care in reporting suspected child abuse and neglect. Some parenting programs, like Triple P and Incredible Years have training programs for practitioners.[3] Triple P has an accreditation process to ensure practical skills of facilitators, which includes practitioners signing a code of conduct with respect to delivering the program to parents.

[3]Training in Group Triple P takes three days including accreditation.

The school psychologist or guidance officer has a central role in coordinating implementation of parenting programs in schools. As internal consultants, they need to negotiate with multiple stake-holders to gain support and maximize outcomes. First and foremost it is necessary to have the support and enthusiastic endorsement from the school Principal. This will enable staff to prioritize program delivery, and promote the program to parents as a valuable part of their child's education. Staff who deliver programs also need to negotiate with parents with whom they work. An important issue to discuss is confidentially and permissible transmission of information to the child's teacher and other staff. This is important because not all information provided by a parent in the context of attending a parenting program is relevant or in the child's best interest for the class teacher to know. To be able to participate freely in a parenting program, parents need to know what information, under what circumstances, will be passed on to whom. One important issue bounding confidentiality is duty of care and the necessity of reporting situations in which a child is at risk. Staff delivering training need to clarify with parents limits to their confidentiality.

When consistency between school and home issues is required to assist children's skills development, it is important to communicate with the class teacher, other wellbeing staff and specialist teachers who may be able to support the child at school. This needs to be done in consultation with the parent. In getting involved in the mental health of children and families, school practitioners need to be aware of other services they can access to provide ongoing support when family needs are greater than what they can provide.

Conclusions and Policy Implications

Evidence-based parenting programs have considerable potential to enhance the well-being and academic success of children and to improve the quality of home–school partnerships. It is in the interests of schools to ensure that parents can access high quality parenting programs appropri-

ate to their needs and cultures. School psychologists and guidance officers are ideally placed to coordinate this work. In conclusion,

1. Making evidence-based parenting programs widely accessible in schools is strongly justified from evidence of positive benefits for children
2. Given the concern of school psychologist and guidance officers with the social, emotional and behavioural adjustment of children, investment of a significant proportion of their time into parent training programs is warranted
3. Schools need to devote resources (time and resources) to enable staff to invest in implementing parenting programs
4. Involving parents as partners would enable schools to be more effective in the social, emotional and academic development of children than teaching social-emotional skills in isolated programs in the classroom
5. Establishing an appropriate parent advocacy or consultancy group may help de-stigmatize accessing of parenting support by parents
6. The enrolment process could be targeted as an opportunity to engage parents in training as parents have heightened responsiveness to involvement in the school at this time
7. Involvement of schools in parent training works best in the context of clear expectations and processes for ongoing parent–school communication.

Test Yourself Quiz

1. How does parenting impact children's outcomes?
2. What are the benefits of a multi-level approach to support parenting within schools?
3. A colleague is planning to implement a new parenting program at a primary school. What organizational-level barriers might your colleague expect? What advice would you give your colleague to overcome these barriers?
4. You have just held your first parenting program session and only two parents attended. Why might that be? How could you increase participation?
5. If a child is presenting with sub-clinical behaviour problems and has been identified as at risk academically, to which level of Triple P would you refer the family?

Conflict of Interest Statement The Triple P-Positive Parenting Program is owned by the University of Queensland. The University through its main technology transfer company, UniQuest Pty Ltd, has licensed Triple P International Pty Ltd to publish and disseminate the program worldwide. Royalties stemming from published Triple P resources are distributed to the Parenting and Family Support Centre; School of Psychology; Faculty of Health and Behavioural Sciences; and contributory authors. No author has any share or ownership in Triple P International Pty Ltd. Matthew R Sanders is the founder and an author on various Triple P programs and a consultant to Triple P International. Karyn L. Healy is co-author of Resilience Triple P and a contract trainer for Triple P International.

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School Psychological Practice with Students from Socio-economically Disadvantaged Backgrounds

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Education has long been thought of as being the key to social and economic opportunity, and as the fundamental ingredient for breaking the cycle of intergenerational poverty (Hampshire, 2015; Machin, 2006). This idea is captured perfectly in the ancient proverb: "*give a man a fish and you feed him for a day; teach a man to fish and you feed him for a lifetime*". From a broad global perspective, this phrase still rings true.

Participation in education and educational attainment is a known indicator and predictor of personal well-being and economic and social inclusion (Machin, 2006). The latest Organisation for Economic Cooperation and Development (OECD) data shows that, worldwide in OECD countries, people with at least an upper secondary education are more likely to have a job than those without this level of education; with those at the lowest end being at greater risk of being unemployed and experiencing poverty (OECD, 2014a). Whilst far from ideal, in Australia, the education participation rate is showing slight signs of improvement. Between 2002 and 2012, the proportion of people aged 20–24 years with a Year 12 or Certificate III rose from 78 % (1.1 million) to 85 % (1.4 million). This rise is also apparent for Indigenous young Australians, although to a lesser degree (Australian Bureau of Statistics (ABS), 2010).

There is a large literature confirming the direct relationship between socio-economic status and educational outcomes around the world (e.g., Aikens & Barbarin, 2008; Bukodi & Goldthorpe, 2013; Ishida, Müller, & Ridge, 1995; Morgan, Farkas, Hillemeier, & Maczuga, 2009; Shavit & Blossfeld, 1993). In Australia, socio-economic background is a strong predictor of student educational success, but it should not be. Almost 13 % of the variance in school performance of Australian students can be attributed to student socio-economic background, with the academic performance gap being as high as three years of schooling (Thomson, De Bortoli, & Buckley, 2013). Around 60 % of young people from the

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lowest socio-economic backgrounds (the bottom two socio-economic background deciles) complete Year 12. This compares to around 90 % for those from the highest socio-economic backgrounds (the top socio-economic background decile) (Lamb, Jackson, Walstab, & Huo, 2015). Furthermore, students from socio-economically disadvantaged backgrounds are severely underrepresented in higher education institutions in Australia, with only 15 % of higher education students being from a socio-economically disadvantaged background, when as a whole they make up 25 % of the overall population (Beckley, Netherton, & Singh, 2015).

Young people without a Year 12 qualification are more likely to be unemployed and be dependent on government welfare benefits. Or if they do find work they are more likely to find low-income jobs with little opportunity for career progression (Lamb et al., 2015). So important is this factor in determining the educational outcomes of students, that at a 2008 Ministerial Council on Education, Employment, Training and Youth Affairs (MCEETYA) meeting of all Australian Education Ministers, the impact of socio-economic disadvantage on students was a focus of discussion, and the goal was set to "ensure that socioeconomic disadvantage ceases to be a significant determinant of educational outcomes" (MCEETYA, 2008, p. 7).

In Australia, families choose to send their children to one of three school sectors, these being: government/public schools, Catholic schools or independent/private schools. Public schools are notionally free in Australia, but essential education items such as computers may need to be paid for by parents. The costs of 'optional extras' such as school excursions are also often not free, and these 'extra' educational expenses can put financial pressure on families with low income. Within the Catholic sector, there exists a range of fee structures, from inexpensive to expensive, whereas independent schools, in the most part, have high costs and, while generally not-for-profit in design, are run often on more 'profit-driven' business models. These schools may advertise their educational service based on student results, prestige and generally focus on the availability of high quality educational and extra-curricular resources and facilities. A family facing financial hardship will generally send their child to either a public or low-fee Catholic school in Australia.

School psychologists can be found in each of the three education sectors in Australia, and depending on their contractual arrangements, will have differing roles and opportunities to make an impact: at the level of the student, the family, the school and the system. Some will be school employed, others will be employed by a district or central office and be allocated a school or range of schools, some will be employed centrally for a specific purpose, e.g. manage statewide disability assessments or as a behaviour specialist. All of these school- or department-employed psychologists provide services that are free to families or are included in the cost of school fees.

Another model, which has become increasingly more common of late, is the private practice school psychologist. These positions are contracted by a privately run school psychological service provider to deliver a set number of psychological sessions to students who are eligible to receive rebated services through the Australian Government's principal form of support to Australians for health care costs—Medicare. Previously, Australian psychology services were not covered under Medicare. However, under a policy initiative commonly known as the 'Better Access' scheme and introduced in 2006, patients who meet a Medicare specified criteria are provided rebated access to up to ten sessions with a Psychiatrist, Psychologist and General Practitioner (GP, see: http://www.health.gov.au/mentalhealth-betteraccess).

Often psychologists providing contracted school psychological services will promote their service as 'free' (as the cost of the service is largely or wholly borne by the Medicare system), and many school principals find this arrangement more attractive from a school budget perspective than employing a psychologist as a salaried member of staff. That said, a number of issues around the commissioning of such a service in school settings are apparent, particularly for students from low-income and disadvantaged backgrounds

and for those who require ongoing and psychologist managed collaborative care. In order for a student to be eligible to receive a Medicare-rebated service from a psychologist, they must first receive a diagnosis and referral from a GP and this may or may not have a cost attached. This would usually require a parent/guardian to take the student to the GP clinic for a referral and mental health care plan. These additional steps, prior to receiving a psychological service, could pose barriers for some students who do not have the resources or opportunity to seek a GP referral, or who require more support than the allocated ten sessions. Furthermore, as this initiative is developed to assist individuals, it does not include consultations with parents, teachers or the school as part of the treatment, which is often an integral component of school psychological practice, particularly for students with multiple issues, of which some may stem from the home environment (see the APS (2015) resource sheet on this issue titled *External Mental Health Service Providers in Schools and the Effective Delivery of School Psychology Services*).

While school psychologists can work with individual students (a client-centred model), they can also take a systemic approach to student support by working with families, the school and the broader community (Bell & McKenzie, 2013). The latter approach is especially important in working with students from economically disadvantaged backgrounds, as the particular issues arising from such circumstances must also be tackled on a broader scale. For example, it may be necessary to collaborate with the local welfare agency to seek funds to pay for the school camp for a student, or to buy new and suitable clothes for a student about to go on work experience or attend a class formal. In some cases, where a student is experiencing issues around homelessness, the school psychologist may need to ensure that the young person is linked with local youth homelessness services or have access to an income. In these cases, the school psychologist takes on a more 'social worker' type of role, especially where the services of a social worker are not available. Key to the success of such an approach is maintaining trust, boundaries and—the cornerstone of psychological practice—the therapeutic relationship. Hancock and Zubrick (2015) summarised a range of studies on effective engagement from the student perspective and concluded "the dominant finding from students themselves is that relationships are of central importance to sustaining engagement at school" (p. 47).

It may be the case that the school setting is the only environment where a student from a disadvantaged background can find safety, stability and support (Rescorla, Parker, & Stolley, 1991; Wall, 1996). Consequently, school psychologists need to advocate for children from disadvantaged backgrounds and help their families access affordable services in the community. If the role of school psychologists is to ensure that students have the skills, psychological capacity and well-being required to engage fully in education, then indicators of disengagement are important for school psychologists to be aware of. A recent summary of Australian research on background risk factors associated with student educational disengagement features poverty strongly (Hancock & Zubrick, 2015). Identified risk factors include:

- Students whose families provide limited educational support or who do not value education
- Students living in families with limited resources, including human, psychological and social capital, income or time
- Students who arrive at school with limited school readiness
- Students who do not form a connection with school, peers or teachers
- Students with frequent absences
- Students who are not achieving well
- Students with chronic illness, disability or mental health issues
- Aboriginal students
- Students living in more remote areas
- Students living in areas of concentrated disadvantage (independent of family level disadvantage)
- Students attending schools with a concentration of disadvantaged students (Hancock & Zubrick, 2015, p. 6).

Hence, schools must understand the issues facing their particular cohort and community and put in extra effort to engage students in education when poverty risk factors are present.

What Causes Socio-economic Disadvantage?

There are a number of factors that cause socio-economic disadvantage. Causal factors are complex and difficult to disentangle and it is important to not stereotype certain groups when considering causes, but rather to think about poverty and disadvantage as resulting from a set of behaviours that may or may not be linked to certain groups (Biddle, 2015). Because of this, the prevalence and incidence of socio-economic disadvantage in Australia and internationally are not wholly limited to certain groups or geographic areas; although there are groups and areas that are more at risk than others. For example, Indigenous Australians are significantly more likely to experience socio-economic disadvantage and poor educational outcomes than their non-Indigenous counterparts, particularly if they are living in a remote area of Australia (AIHW, 2015; Commonwealth of Australia, Department of the Prime Minister and Cabinet, 2016; Karmel, Misko, Blomberg, Bednarz, & Atkinson, 2014; Steering Committee for the Review of Government Service Provision (SCRGSP), 2014). This is also the case for Culturally and Linguistically Diverse (CALD) students, such as refugees who also report higher levels of discrimination and marginalisation (Corcoran & Nichols-Casebolt, 2004).

School psychologists should not think of socio-economic disadvantage as an issue only impacting students from jobless family backgrounds or only occurring to those residing in poorer communities. In Australia (and internationally) there is a growing incidence of families who can be defined as the 'working poor'. Compared to the overall subset of people in poverty, the working poor are mainly comprised of couples with children whose primary source of income is from low wages or salary (Payne, 2009). For the school psychologist, this means that, as an indicator of economic security, the incidence of parental employment should not be taken without further information around level of household income or income relative to how many people live in the family household. Low levels of household income, even if members of a household are employed, impact on the opportunities available to the family to improve or support their children's educational outcomes. Similarly, there may be lowered ability to access to educational resources when one working member of a family has a high income but is supporting a number of dependents.

Economic disadvantage also has a temporal dimension: It can be the result of either a recent event or chronic event or condition. For example, a temporary or relatively recent change in a family's economic circumstances, such as the sudden loss of a job (particularly in families relying heavily on an income to fund mortgages, school fees and other expenses), the onset or worsening of parental mental illness or ill health, separation and divorce, or some other family crisis that impacts a change in family income can significantly affect a family's ability to afford everyday household expenses. Another cause of socio-economic disadvantage is 'bill shock' (Foodbank Australia, 2016). According to the Essential Services Commission Victoria (2016), in 2013–2014, approximately 58,503 Victorian households were disconnected for non-payment of energy bills, which was the highest number of disconnections ever recorded by the Commission.

Economic disadvantage can be the result of intergenerational or long-standing poverty, known in the literature as entrenched or chronic disadvantage (Committee for Economic Development of Australia, 2015). In Australia, entrenched economic disadvantage is a growing problem. It is estimated that 4–6 % of Australians experience entrenched intergenerational disadvantage, and in 2012, 530,000 Australian children were living in unemployed households (ABS, 2013). Again, one must not assume that this is an issue only affecting families in 'poor' areas. Whilst, large-scale low-socio-economic

communities certainly exist, there are also 'pockets of poverty' in what are otherwise quite affluent communities. An example of this is when public housing facilities have been scattered throughout municipalities, including in what are commonly termed 'green leafy' Australian suburbs. It may well be that a school psychologist is working in a high-socio-economic school, but which has students in attendance who are from an impoverished background—and highly aware and perhaps trying hard to hide their situation from their more affluent friends.

Regardless of the school setting (public, Catholic or independent), it is more likely than not that school psychologists will, at some stage of their career, come across the impact of recent or entrenched disadvantage in their work with students. The fact is that there are a significant number of Australian families who are living in poverty. Despite annual disposable household income in Australia being higher than the OECD average, the latest OECD data shows that 14.4% of the Australian population can be classified as meeting the criteria for relative poverty (living below 50% of the country's median household income), which is higher than the OECD average of 11.3% (OECD, 2014b).

However, like our teacher colleagues in Australia and other Western countries, school psychologists are predominantly middle class and may not fully understand or 'step into the shoes' of those from socio-economically disadvantaged backgrounds (Burnett & Lampert, 2016). Some school psychologists may come to this work with assumptions and biases that are not fully in step with the needs and experiences of those who do not share their own background. It is therefore somewhat surprising that the impact of socio-economic disadvantage on individuals' well-being is not a strong feature of the training of psychologists in Australia. Psychologists may find themselves not really knowing what to do (or what they are 'allowed' to do) when socio-economic factors are the most significant barriers to individual well-being or social participation (e.g. when a student suddenly becomes homeless).

Measuring Poverty and Economic Disadvantage

The World Bank Institute (2015) defines poverty as a subcategory of one of three components of population well-being, the other two being inequality (in the distribution of income, consumption or other attributes across a population) and vulnerability (probability or risk of being in or falling deeper into poverty in the future). Poverty, according to the World Bank, is the degree to which households have enough resources to meet their needs (Coudouel, Hentschel, & Wodon, 2002; World Bank, 2015). The resources required to meet needs will be different according to the place and country that a family resides and so there is a place-based 'relative' component to the definition of poverty. At a community or school level poverty is also relative. Think of the child from the family living in public housing in a 'leafy green' suburb, who is teased for sharing one room with three siblings, not having their own computer to bring to class, not able to wear new clothes on 'free dress day' or bring expensive presents to friends' birthday parties. Whist he or she is well fed and attending a 'good' school, the impact of the family's low household income may be high relative to the standards expected within that particular community.

The most popular method to measure poverty is to set a poverty line and then determine the proportion of the target population that lies below the poverty line (the so-called headcount measure) (Ruggles, 1990). The international measure of the poverty line (an 'extreme' poverty line) uses the absolute minimum level of income required to maintain a person's minimum nutritional, clothing and shelter needs (World Bank, 2015). The World Bank's current international extreme poverty line is $1.90 per day (see http://www.worldbank.org/en/topic/poverty/brief/global-poverty-line-faq). While the World Bank publishes the international extreme poverty line and provides estimates of the proportion of the world's population below the international poverty line, it also supports the idea of poverty varying across 'time and space' according to a

country's level of development, societal norms and values. More generally, the poverty line is set relative to the minimum standards of a community or country in which a population resides. This is the relative poverty line. A relative poverty measure is also commonly used to determine an individual or community's level of socio-economic disadvantage.

In the United States, social economic status is conceptualised along three different dimensions. First, social economic status is derived from a combination of factors such as income, education and occupation (Grusky, 2001). According to this model, socio-economic status implies access to resources and its inherent consequences on education and achievement, health care services and social services (American Psychological Association, 2007). The second conceptualisation of social economic status is construed as a continuous variable and focuses on socio-economic gradients. Specifically, it considers the individual's or group's position in relation to other socio-economic groups and takes into account the socio-economic disparities in health and well-being between groups (Lynch, Harper, Kaplan, & Smith, 2005). Finally, the last approach to conceptualising social economic status takes into account power and privilege and involves social class-based conceptualisations of inequality (APA, 2007).

What Is the Extent of Socio-economic Disadvantage in Australia?

In Australia (and in many countries in the OECD), a widely used measure of poverty is simply calculating whether or not a family or individual's median household income is below the 50% (or 60%) mark of the 'middle' or median income of all households (a 'pure' relative poverty line). Taking into account household costs, the Australian Council of Social Services (ACOSS) Poverty Report estimated the relative poverty line in 2012 in Australia, using a 50% measure to be around ($AUD) $400 per week (disposable income) for a single adult, ($AUD) $841 per week for a couple with two children and ($AUD) $640 per week for a lone parent with two children (ACOSS, 2014). Using the 50% median income approach to measuring poverty, in 2012 ACOSS found that 14% of all Australian adults and 18% of all Australian children were living below the poverty line. Women, people born in countries where English is not the main language spoken, Aboriginal and Torres Strait Islander people, people with a disability and sole parents are at a particularly high risk of poverty (a third of sole parents in Australia were classified as being in poverty in 2012). Contrary to popular belief, 33% of people who fell below the poverty line relied upon wages as their main income, rather than social security (ACOSS, 2014). ACOSS profiled a typical example of a family in this situation:

> "Aiesha is a 32 year old single mother raising two children, aged 7 and 5, with no family of her own in Australia to provide support. Most of her income from Centrelink goes towards bills and rent in addition to medical fees for her son to access a speech therapist. She has a one bedroom community housing unit. She wants to give her children a better future, but has significant financial struggles with increasing education and other costs as her children grow older. She cannot afford to pay for many of the activities, like swimming lessons, which would support her children's health, participation and development, and which other families take for granted. Aiesha receives some support from her friends and accesses services offered by community organisations. She simply wants to raise her children well and give them a good future so they can give back to the community and have a good life" (ACOSS, 2014, p. 21)

The school psychologist may want to reflect on how they may begin to work with the school and other organisations to support both the children and Aiesha in ensuring that they have access to a full and inclusive education, where their family circumstances are minimised and a 'good future' is possible.

Socio-economic Disadvantage in the School Context

In Australia, there exists a useful measure of schools' relative educational disadvantage (or advantage), and which is publicly available for

every school (public, Catholic and independent). This measure rates all Australian schools on an index of disadvantage called the Index of Socio-Educational Advantage (ICSEA) (ACARA, 2014). This system gives a numerical value to a school based on four factors: parent occupation types, parent highest education level, geographic location and proportion of Indigenous students. ICSEA is set at a 'benchmark' average value of 1000, with the higher the ICSEA value the higher the level of educational advantage experienced by students who attend a particular school, and vice versa. ICSEA scores range from approximately 500 (representing extreme educational disadvantage) to approximately 1300 (representing very educationally advantaged backgrounds). It was set up to allow meaningful and fair comparisons between statistically similar schools on their performance on a national assessment test commonly known as the 'NAPLAN' (National Assessment Program—Literacy and Numeracy). NAPLAN is taken by all students nation-wide in Years 3, 5, 7 and 9 and in recognition that student achievement is influenced by factors greater than the individual, namely socio-economic factors (Australian Curriculum, Assessment and Reporting Authority (ACARA), 2013, 2014) schools are compared on this factor.

Having knowledge about the characteristics and impacts of poverty is useful for school psychologists supporting students from economically disadvantaged backgrounds. School psychologists should be familiar with the ICSEA ranking of the school/s they work in, and understand the impact that economic disadvantage has on students—educationally and psychologically—both in schools where there is a high level of economic disadvantage present (i.e. a low ICSEA ranking) and for a student who suddenly becomes economically disadvantaged in an otherwise high ICSEA level school.

Measures that have been developed to assess the extent and impact of poverty and deprivation on a family's ability to afford everyday items and activities can further assist to give the school psychologist insight into the student's actual experience of socio-economic disadvantage at the household level. Beyond gathering income information, these measures commonly ask households to report on whether or not they have access to the expected 'essentials of life', which are the practical items and means needed for social inclusion in Australian society. Things like having a washing machine (i.e. to wash school uniforms and children's clothes), a separate bed for each child, being able to purchase presents for birthday parties, school uniforms and books, warm clothing and heating and furniture in reasonable condition (see Saunders & Wong, 2012) are the very real indicators of whether or not a household is struggling.

It may also be as simple as asking whether students ever go to school or bed feeling hungry; or if they ever worry if there is enough food for them to eat or whether the quality of food eaten is poor due to financial reasons. The United States Department of Agriculture (USDA) defines a family as food insecure if "their access to adequate food is limited by a lack of money and other resources" (Coleman-Jensen, Rabbitt, Gregory, & Singh, 2015, p. V). Utilising data from the United States Census Bureau, Coleman-Jensen et al. (2015) found that 14 % of American households were food insecure at least some time during the year in 2014, meaning they lacked access to enough food for an active, healthy life for all household members. In households that contained children, 9.4 % reported as food insecure during the previous year, equating to 3.7 million households. These households reported that, in the previous 12 months, they were unable at times to provide adequate, nutritious food for their children, demonstrated by answering yes to some or all of a set of questions that included items such as 'we relied on only a few kinds of low-cost food to feed our children because we were running out of money to buy food' and 'the children were not eating enough because we just couldn't afford enough food' (Current Population Survey Food Security Survey, see http://www.ers.usda.gov/media/1896841/err194.pdf).

Weinreb et al. (2002) also measured child hunger in the U.S. by utilising education, income and health data from homeless and low-income housed mothers and their children and found that out of the 228 school-aged children studied

(mean age = 10), 50 % experienced moderate child hunger and 16 % severe child hunger. Children who experienced severe hunger (who were often hungry on a daily basis as they did not have enough food to eat) were more likely to be homeless, have been a low birth weight baby and have stressful life events. Their parent-reported anxiety scores were double those of their non-hungry counterparts, and they also had significantly higher levels of chronic illness and internalising behavioural problems.

The issue of child hunger is also prevalent in Australia. Foodbank Australia (a non-denominational, non-profit organisation which acts as a pantry service to the charities and community groups who feed the hungry, see http://www.foodbank.org.au/) provides breakfast programmes to over 1000 schools around Australia. In 2015, they released a report titled 'Hunger in the Classroom', which revealed that 67 % of Australian teachers reported children coming to school hungry or without eating breakfast and that this was having significant impacts on children's concentration, learning, social interactions, behaviour and mental health (Foodbank Australia, 2015). Foodbank asserts that providing breakfast to children at school is not only having an impact on student nutrition and ability to concentrate, but is also creating a sense of community and belonging for students who would otherwise be significantly disconnected with education. They say that teachers' report that as a result of the breakfast programme, students are showing an increased interest in attending and in looking forward to coming to school. In 2008, a systematic review of more than 100 published research articles on the impact of breakfast programmes on children's health and learning revealed:

> "serving breakfast to those schoolchildren who don't get it elsewhere significantly improves their cognitive or mental abilities, enabling them to be more alert, pay better attention, and to do better in terms of reading, math and other standardized test scores. Children who eat breakfast also are sick less often, have fewer problems associated with hunger, such as dizziness, lethargy, stomach-aches and ear-aches, and do significantly better than their non-breakfasted peers in terms of cooperation, discipline and inter-personal behaviours" (Brown, Beardslee, & Prothrow-Stith, 2008, p. 4)

A photo taken by Thielking at a visit to a secondary school in Melbourne, Australia.

In another recent report by Foodbank Australia (2016) it was revealed that one in six Australians go hungry each year with insufficient access to affordable and nutritious food. They reported that over 43,000 people who were seeking food relief each month from charities and community groups were unable to be assisted, 32 % of whom are children. Foodbank now has over 644,000 people a month now accessing food relief from Foodbank agencies, a rise of 25 % since 2014, and Foodbank is naming this a 'hunger crisis impacting everyday Aussies' (see http://www.foodbank.org.au/2016/06/01/hunger-report-2016-reveals-crisis-impacting-everyday-aussies/; Foodbank Australia, 2016).

Poor nutrition and disadvantage has direct negative consequences on children and adult's health outcomes (Quon & McGrath, 2015). Moreover, when low socio-economic status and

disadvantage are key features of a particular neighbourhood, there is a significant and disproportionate increase in obesity, asthma and/or hypertension (Duncan et al., 2012). An Australian nutrition study found that school children from socio-economically disadvantaged backgrounds were significantly more likely to have higher Body Mass Index (BMI) scores than children from more advantaged backgrounds (O'dea & Dibley, 2010).

Research has also linked diet quality to mental health in children and adolescents. A major research study in 2010 found a significant relationship between poor diet and adolescent depression (Jacka et al., 2010). School psychologists can play a role in ensuring there is a healthy food policy in the school covering canteens and school camps, educating parents and the broader school community about the role of a healthy lifestyle (Jacka et al., 2010), as well as by talking to students about the role of a healthy diet in improving overall well-being and self-care or referring students to see appropriate professionals (such as a school nurse or dietician) if poor nutrition/diet is an issue.

Creating Low-Socio-economic-Friendly Schools

The impact of socio-economic disadvantage on educational outcomes cannot be pinpointed to any one source, and emerging evidence reveals that it is determined by a complex interplay of both family and school factors (Buckingham, Wheldall, & Beaman-Wheldall, 2013; Fergusson, Horwood, & Boden, 2008). Regarding school-level factors, what we know is that in general, students living in poorer communities are more likely to attend schools with fewer resources and be taught by lower qualified teachers (Muijs, Harris, Chapman, Stoll, & Russ, 2009). Inevitably, students attending these schools are more likely to have poorer school attendance, lower grades and higher dropout rates. Compounding this situation is the tendency for higher performing teacher graduates to work in advantaged rather than disadvantaged schools, which has been the case in Australia and internationally (Burnett & Lampert, 2016).

One Australian university has recognised the need for high-quality pre-service teacher training on the unique issues that impact disadvantaged students and to prepare teachers to work in disadvantaged schools. In 2009, the Faculty of Education at Queensland University of Technology (QUT) developed the National Exceptional Teachers for Disadvantaged Schools (NETDS) programme, which selects exceptional teacher trainees to participate in a specialised curriculum that equips them for teaching in schools that are ranked below 1000 on the ICSEA scale. It has been highly successful, winning a number of awards, is now taught in at least six other Australian universities and high poverty Australian schools are expressing strong interest in employing graduates of the NETDS programme (Burnett & Lampert, 2016). Interestingly, the authors argue that the success of the programme on student outcomes will not be determined merely by the good relationships that NETDS graduates are able to establish with students from high poverty schools (although it is noted to be an important factor), but by taking the educational success of socio-economically disadvantaged students seriously, and being able to adequately equip students with the actual skills and knowledge necessary to achieve in education to a high standard, rather than just coaching a young person to 'dream big'. The authors of the programme assert: "It is all very well to 'believe' any child can be an engineer, but unless somewhere along the line they are taught high-level mathematics, these high expectations become merely magical thinking. In fact, we would argue that these expectations may even set children up for failure" (Burnett & Lampert, 2016, p. 68).

In some socio-economically disadvantaged communities in Australia, innovative whole-of-school programmes have been developed to respond to the specific and unique issues of their families and students. A bold and innovative example of this is the Western Australian Challis-Community School programme (Clark & Jackiewicz, n.d), which is situated in one the most socio-disadvantaged communities in Australia.

The early intervention programme, targeting young children from 0 to 3 *before* they enter school, was born out of a series of community meetings to address the poor academic success of the local children, and resulted in the development of 'hubs' of services on school sites (also known as a 'full service school'), which are highly integrated with professional health, education, cultural and community support services. The philosophy behind the Challis model is theoretically grounded (i.e. Bronfenbrenner's Ecological Systems Theory) and has seven key components: (1) every child can succeed, (2) schools make a difference, (3) no one is to blame, (4) minimum expectations of children and their families (other than the one explicit expectation that children's participation in school is essential), (5) excellence in teaching, (6) respect for culture as well as building the relationship between family and school and (7) doing what needs to be done (a flexible approach to access and ensuring all children can get to school ready to learn). Results on Challis' effectiveness have shown that children who participate in the programme have had a 40% reduction in the prevalence of developmental vulnerability, particularly in the areas of language and cognition Clark & Jackiewicz (n.d). The Western Australian Department of Education has now funded and opened 16 Child and Parent Centres across Western Australia that are based on the Challis Model (Hancock & Zubrick, 2015).

What school psychologists can take from this is that when supporting students from socio-economically disadvantaged backgrounds with their mental health, learning or behavioural issues, it may not always be enough to provide a traditional therapy-only approach (although this may also be needed); or to apply interventions that do not take into account the core reasons associated with socio-economic disadvantage for why a student is disengaged from school, struggling with their learning, or experiencing poor mental health. From a consultation perspective, school psychologists are central key players in facilitating teachers' understanding of these students' unique characteristics and needs. Given their complex profile, at times students who come from a disadvantaged background might require specific interventions, both at an academic level as well as from a behavioural perspective.

It may be helpful for school psychologists to ask the following questions: In this school and community, what is the expected standard of living for a family and how does my student-client's home situation compare with that of his or her peers, how does this impact my student-client? Is my student-client experiencing inequality (educationally or socially) due to their economically disadvantaged background? How vulnerable is my student-client to the negative impacts of their economic disadvantage? How many students in my school are economically disadvantaged and what are the educational opportunities afforded to this school compared to others in more advantaged areas? What can I do, as a school psychologist, to ensure that students are both supported and protected from the negative impacts of a disadvantaged background so that they experience an inclusive and equitable education? Sometimes by seeking the answers to these questions in a collaborative manner with school staff and community representatives, it can be the first step in ensuring awareness is raised and programmes can be established to reduce barriers and increase opportunities for students from disadvantaged backgrounds. A multidisciplinary approach is required to ensure students do have the resources and skills required, and structures in place (i.e. money for a uniform, excursions and books, effective teachers that are experts in this area), to have the opportunities to succeed, to cope effectively with life and to be successful at school.

Increasing Socio-economically Disadvantaged Students' Participation in Education

> "School fees are crazy, as well as everything else she needs… a year it costs around $2000 easy. That's fees $500, uniforms, shoes $400, excursions $500, discos, out of school uniform days which you pay for, bbqs, school concerts, books, pencils, texts, equipment $500… that's not private that's public school… schooling is the one huuuuuge factor…" (NCOSS Cost of Living Report, 2015, p. 37).

A 2015 Mission Australia study of 18,994 young people aged 15–19 years from around Australia revealed that the top three barriers that young people chose as preventing them from achieving their goals after school were academic ability (18.2 %), *financial difficulty* (16.9 %) and lack of jobs (12.2 %) (Cave, Fildes, Luckett, & Wearring, 2015). Furthermore, approximately 40 % of young people from the lowest socio-economic backgrounds do not complete Year 12 or its equivalent by age 19 (Lamb et al., 2015). Therefore, one cannot assume that in a country like Australia, where public education is legislated as 'free', that all children will have similar opportunities for educational participation and success. This is despite the presence of education legislation which attempts to prevent inequity from occurring. For example, in the Australian state of Victoria, the Education and Training Reform Act 2006 specifies that "*all Victorians, irrespective of the education and training institution they attend, where they live or their social or economic status, should have access to a high quality education*" (section 1.2.1 (b)) and that "*instruction in the learning areas … is to be provided free of charge for all students*" (section 1.2.2(2)(b); Victorian Government, 2006). The Act also supports the Education Minister to make provisions that remedy the impact that disadvantage has on educational outcomes, and who "*may provide or arrange special or additional assistance for students in Government schools with special needs, including the provision of meals to students who are disadvantaged by their socio-economic background*" (Section 2.2.20). However, school principals are able to charge parents for 'non-essential' educational expenses and what is becoming increasingly apparent is the impact that the 'cost' of public education is having on student engagement and participation (Thielking, Flatau, & Hampshire, 2014).

Education costs may include uniform, books, excursions, camps, educational equipment (like calculators, art materials) and technology (like computers). Furthermore, from primary school, students are given homework tasks that require them to have a computer at home with access to the internet, which also entails a cost. A 2015 survey conducted by The Salvation Army of their emergency relief clients Australia-wide revealed that 60 % of the 2864 children who presented with their family's to Emergency Relief experienced severe deprivations and went without more than five essential items in life, for example 65 % did not participate in out-of-school activities and 62 % did not have an internet connection at home. Furthermore, more than half reported they did not have money to participate in school activities (54 %) and 50 % reported that they went without up-to-date school books (The Salvation Army National Economic and Social Impact Survey, 2015). What studies like this highlight is that it is not an equal playing field when it comes to education equity and opportunity—and that particular families may need more financial support than others to achieve the same access to education as other students who come from more advantaged backgrounds (Savage, Sellar, & Gorur, 2013).

Another concern relates to secondary students' choice of subjects as they approach the senior years of their secondary education. Another Australian study has found that a significant number of socio-economically disadvantaged secondary school students do not choose or do not '*like*' the school subjects or activities that they cannot afford, showing evidence that subject cost influenced subject choice and participation (Skattebol, Saunders, Redmond, Bedford, & Cass, 2012). This means that whilst a young person may be great at art they may not choose to study art because the costs of materials are beyond what they can afford. This has implications for school engagement for those students and on the future opportunities for further study and employment.

In collaboration with other researchers, Thielking is currently leading the Swinburne University development of a measure that all public secondary schools can use to determine the impact that education costs are having on students and families, especially in relation to school participation and access to higher education (Secondary School Costs Survey, funded by the Commonwealth Government's Higher Education Participation and Partnerships Programme, see https://www.education.gov.au/heppp-2014-partnerships-projects). This measure will assist

schools to create policies that ensure families facing financial stress have access to resources to support their child's education, and that all students, regardless of family background experience an inclusive education. School psychologists can be key players in implementing this measure, collecting and analysing data to ensure awareness of such issues is raised.

Families play an important role in the lives of students from a disadvantaged background. According to Stull (2013), the family socio-economic background, along with the parental expectations has both a direct and indirect effect on student's achievement. Additionally, authors suggest that students who come from a disadvantaged background are more likely to have a better academic outcome when their parents are more involved in their education (Rubie-Davies, Peterson, Irving, Widdowson, & Dixon, 2010). While we have little control over a child's family background, it essential to have a good understanding on how these factors impact a child's academic functioning, and therefore use the school's conditions to compensate for family deprivation (Hoff, 2003; O'Connor & McCartney, 2007). Providing these students with additional academic support opportunities (e.g. homework centres, tutoring, peer mentoring programmes, afterschool enrichment, etc.) along with mental health support is an important step towards making a difference in students' education outcome. A multisystemic approach is recommended in addressing the social, emotional and mental health support of students. Family therapy has been shown to be an effective way of addressing these students' mental health needs. As previous authors suggest, the more families are involved in a child's counselling the better the results (Kaylor & Flores, 2008).

As a school psychologist you may want to reflect on your own values and expectations that you bring to your meetings with families. If parents were struggling to meet the costs of education, or were experiencing financial stress around 'keeping up' with the expectations of the school and other families, how approachable are you and/or the school for them to discuss their concerns? What financial barriers to education are present and how can these be removed? Can you identify education expenses that may be creating a financial burden on families struggling to meet the costs of books, excursions, education resources, fund-raising, uniforms, materials or anything else? When you refer a student for an assessment outside of the school, how will the family get there and are there any costs involved?

The Role of Non-government Organisations in Supporting Students from Socio-economically Disadvantaged Backgrounds

> "Efforts aimed at improving Australia's educational performance need to take account of a complex range of personal, family, institutional, community and societal factors that influence young people's outcomes. These include: young people's skills, knowledge and attitudes to learning; parents' engagement in their children's learning; the quality of teaching that young people experience; school culture; and the resources and networks young people and their families can access in their community" (The Smith Family, 2016, p. 4).

An important resource that is available in Australia to assist socio-economically disadvantaged students and their families to participate fully in education is the not-for-profit sector (e.g. The Salvation Army or Mission Australia), which provide a number of programmes and/or financial assistance to assist families with the cost of education, or that support students directly with practical initiatives like tutoring or mentorship. It is critical for school psychologists to be aware of and connected to such organisations that can often provide the practical assistance that is also required when delivering interventions to improve students' educational outcomes. One excellent Australian example of this is the nationwide scholarship programme called the Learning for Life programme, run by The Smith Family (a not-for-profit children's charity whose primary aim is to improve the educational outcomes of disadvantaged children) (The Smith Family, 2016). Learning for Life specifically targets children and young people from socio-economically disadvantaged backgrounds who are likely to have poor educational outcomes

unless they are provided with additional support. Learning for Life assists approximately 34,000 students and their families a year and is available to students from their first year of primary school to their last year of tertiary education. Compared to other students from their school (who may also be disadvantaged), participants in the Learning for Life programme are more likely to be of Indigenous Torres Strait Islander backgrounds, far less likely to have a parent who has completed Year 12 or university, or have a parent who is employed. The programme supports children and their families in three ways: by providing a biannual payment to families to support educational expenses ($500–$800 per year per participant); by linking the family with a Learning for Life Coordinator who helps the family overcome any barriers to school attendance, engagement and achievement that their child may face, as well as providing support to schools around alleviating issues of education disadvantage; and providing access to a range of programmes for both children (such as literacy and numeracy programmes, learning clubs, mentoring and career activities) and their parents/guardians (such as digital and financial literacy skills).

The most recent evaluation of the programme showed that the average length of time on the programme for secondary school students is 6 or more years, and 84% of students who left the programme in Years 10, 11 or 12, were engaged in employment, education or training, a year after leaving the programme (The Smith Family, 2016). Furthermore, in 2014, the attendance rate for the primary school students, secondary school students and Indigenous and Torres Strait Islander students participating in the programme was 91.3%, 86.9% and 87.3%, respectively. Equivalent national comparison data is not fully available; however, what we do know that these figures are not too different for national education participation data that includes students from all socio-economic groups, and particularly for the Indigenous and Torres Strait Islander students, the Learning for Life participants are doing better (The Smith Family, 2016).

Programmes that are designed specifically to improve the life chances of children from socio-economically disadvantaged backgrounds, like The Smith Family's Learning for Life programme, are important resources for school psychologists, who can be integral to creating links and collaborations with the organisations that provide such programmes in schools and communities. Socio-economically disadvantaged students, who received academic and emotional support in school, reported higher levels of effort towards academics (Kaylor & Flores, 2008). School psychologists can, therefore, play an important role in identifying such barriers to education and well-being, and intervening to ensure that all students, regardless of family background, are given the appropriate and practical supports to stay at school and achieve their potential.

Socio-economic Disadvantage and Shame, Loneliness and the Role of Positive Family and Peer Relationships

Growing up in poverty has been shown to have a direct and chronic impact on children's cognitive development (Heckman, 2006), socio-emotional development (Conger & Donnellan, 2007), brain development (Hackman & Farah, 2009) and physical health (Evans & Kim, 2013; Miller & Chen, 2013). Furthermore, socio-economic disadvantage has a daily impact on student's ability to 'fit in' with a social group and has a high degree of shame and stigma attached. This is illustrated in the following case example provided by the Australian Council of Social Services (2014) to demonstrate the very real experience of the struggle to cope, which is experienced by parents who cannot afford even the simple everyday things for their children:

> "Just being able to take my daughter out. You know her friends have the best toys well she doesn't—she gets told, 'We don't have the money'. That's the hardest for me. She knows she's different, she knows you can't afford it. At the supermarket yesterday ice-cream was $2 cheaper the day before. Walked out with nothing because it's today, not yesterday. They're the kind of things that upset me. That we can't give her what other kids have. She can't have the best clothes, the best toys. We can't say 'Ok, let's go on a holiday'. We just don't

> have that option. So you know I'm sick of saying no the whole time because it wears you out. Not having to say no once…" (p. 22).

Recent psychological research that draws on evolutionary psychology theory argues that shame may be a neurologically and biologically determined phenomenon designed to protect oneself against ostracism or separation from a group, and individuals who are feeling 'ashamed' take the necessary actions to ensure that they fit in and are accepted, including hiding whatever is the cause of difference from the norm. The researchers supported this notion by showing that intensity of shame experienced by an individual is largely determined by the perceived level of devaluation of others towards them (Sznycer et al., 2016). According to Sznycer et al. (2016) shame is adaptive, in that survival depends on the support given from, and resources shared by, other people. Therefore, people avoid or minimise actions or situations that induce shame. Similarly, in a study of poverty in seven comparatively diverse countries, not only was poverty culturally nuanced and relatively experienced according to a particular society's set of norms (poverty 'looks' very different in Uganda and India compared to how it looks in the United Kingdom, but regardless of how it 'looks', there are people who are poor in every country relative to the norms and expectations of others), but the one uniting thread that occurred in all countries and that tied the experience of poverty together was the ubiquitous experience of shame in impoverished children and adults. This shame led to factors such as 'keeping up appearances', withdrawal, self-loathing, 'othering' (comparing the self to others who are in worse situations than themselves and creating a social hierarchy which put them as being in a better situation than others), despairing, depression, thoughts of suicide and lower self-efficacy (Walker et al., 2013).

Perceived (and actual) devaluation by others and its relationship to shame may be a factor in disadvantaged students' experience of school. Research into student bullying and victimisation reveal that a significant reason for why students are bullied is because they do not fit in or are different in some way, including not having the latest things or enough money (i.e. Espelage & Asidao, 2001). Being bullied can further serve to lower the student's sense of self-worth, personal identity and participation in education. Recognising that shame is strongly attached to socio-economic disadvantage, and that students may be hiding their situation in order to protect themselves from being bullied or devalued is important to know. In turn, this separation from peers can create isolation, loneliness and psychological distress. This was found in a Queensland, Australia study of 16–26-year-old young people from varied socio-economic circumstances. The socio-economically disadvantaged group (the unemployed young people with no access to paid work) experienced the most social loneliness, the most economic and experiential deprivation, and the most psychological distress (Creed & Reynolds, 2001).

According to Morgan et al. (2009), compared to their peers, young children from low socio-economic households are also twice as likely to display learning-related behaviour problems. This impacts on their ability to learn and be successful at school and can result in difficult relationships with peers and teachers. Sometimes, a student's ongoing behavioural issues can result in suspension or expulsion from school. A recent Australian study found that students in low socio-economic areas were a third more likely be suspended than students in mid socio-economic areas (Hemphill et al., 2010). Whereas students in high socio-economic areas were two-thirds less likely to be suspended (Hemphill et al., 2010). However, exclusion from school should only be a last resort action, if at all, as it can have a detrimental effect on perceived stigma and increased exposure to antisocial networks (Quin & Hemphill, 2014). School psychologists are in a position to encourage dialogue within schools and find more inclusive ways of managing difficult student behaviours and to ascertain the root cause of misbehaviour, rather than resorting to exclusion disciplinary practices.

Being part of a social group and experiencing positive relationships is particularly important for young people as they enter their teenage years and there is mounting evidence to suggest that

the experience of loneliness, particularly when it becomes chronic, is a significant risk factor for a number of debilitating psychological (e.g. Shevlin, McElroy, & Murphy, 2015) and physical (Krause-Parello, 2008) conditions, including increased mortality and suicide (e.g., Gallagher, Prinstein, Simon, & Spirito, 2014; Holt-Lunstad, Smith, Baker, Harris, & Stephenson, 2015). Therefore, when supporting students who may be feeling a significant level of shame associated with their socio-economic background, school psychologists need to monitor their client's level of loneliness and associated social exclusion and create opportunities and interventions that ensure students are not excluded in important normative events for their age group (such as camps, excursions, social events) due to financial barriers that put those events and experiences out of reach. Even at a most basic everyday level, a recent study of 108 adolescents from low socio-economic status schools in Western Australian confirmed that in regard to adolescents' emotional response to everyday external stressors, those young people who were with their friends and peers after a stressful event were more likely to have more positively valenced post-stress emotions than those who did not have their friends with them (Uink, Modecki, & Barber, 2016).

School Psychological Services for Socio-economically Disadvantaged Students

Coming from a socio-economically disadvantaged background may mean that there is more time spent in the family on practical necessities such as household tasks, caring for family members and managing limited financial resources. For example, a study of student participation in extra-curricular activities in Perth, Western Australia found that students from low socio-economic status schools were overrepresented in the group of students who did not participate in extra-curricular activities (sport and non-sport structured activities) due to a lack of family resources. However, they found that those who did participate had a significantly higher level of positive self-worth and self-concept than those from similarly ranked schools who did not participate in such activities (Blomfield & Barber, 2011). Increasing opportunities for students from disadvantaged backgrounds to engage in extra-curricular activities might involve advocating for increased provision of such activities within the school and/or linking students to external agencies who are able to fund or provide such activities in an accessible and socially inclusive way.

Mentoring opportunities are also of benefit to students from socio-economically disadvantaged backgrounds and if designed, resourced and evaluated effectively can lead to better education and employment outcomes for disadvantaged youth (Machin, 2006). Intergenerational unemployment and a lack of resources may mean that opportunities for children and young people to meet a broad range of people, from differing professional backgrounds are limited. Providing access to people engaged in various employment and educational pursuits can encourage aspiration and the consideration of diverse educational and employment pathways that are available.

Legal and Ethical Issues in Australia

In Australia, school psychologists are bound by a professional Code of Ethics (Australian Psychological Society (APS), 2007), which ensures competent and ethical psychological practice. Whilst the Code stipulates that psychologists are not to discriminate against or stereotype clients on the basis of *age, religion, sexuality, ethnicity, gender, disability or any other basis proscribed by law*, it does not specifically reference a client's economic or social status as a key factor to be aware of in dealings with clients. However, as demonstrated in this chapter, socio-economically disadvantaged young people and adults alike report a significant level of stigma and marginalisation associated with their economic circumstances, particularly those who are homeless or unemployed (e.g. Rantakeisa, Starrin, & Hagquist, 1999) and it is vital that in the interests of developing a strong therapeutic

relationship that school psychologists avoid adding to this sense of marginalisation, by unintended judgement or by creating barriers to treatment for the student or their family. For example, it may be with best intention that a school psychologist asks a family to refer their child to a private paediatrician to conduct a more comprehensive assessment, but the cost of such a consultation may not be possible, which may result in the family avoiding further contact with the school psychologist as they are too embarrassed or ashamed to explain that they cannot afford this service. Or, it may be very difficult for a sole parent to attend an after-hours parent information session because the cost of a baby sitter to care for young children at home is too high. Therefore, an awareness of disadvantage, particularly in relation to family and community economic disadvantage and its impact on students and families is an important competency for psychologists working in this role, particularly in relation to knowing the specific issues affecting the community in which they work.

Ethical principles that may be particularly relevant include issues of respect and not behaving in a manner that may be perceived as demeaning (APS, 2007). Whilst we might seek to educate and provide information and options for people, it must be provided in a way that is not coercive or judgemental and is always respectful of the right of people, including students, to make their own choices. Issues of age of consent and confidentiality may be complicated by the students' family situation. The APS Code of Ethics does not stipulate a chronological age in which a young person is able to provide informed consent. School psychologists must make an assessment on the student's capacity to understand the nature, benefits and risks, and consequences of psychological service, and capacity to make an informed choice and understand the limits of confidentiality (APS, 2007).

Understanding professional limitations is also important when working with students from socio-economically disadvantaged backgrounds. Feeling sympathy and the urge to improve a student's situation can create false hope if promises cannot be delivered. In most cases, the reality is that we are not in a position to create sudden and monumental change to the environments of young people. Where we may influence change is in schools and in assisting students to develop their ability to cope with their particular circumstances. School psychologists can also reveal the possibility of changing one's circumstances through ongoing engagement in education and being linked in with agencies and services to assist families who are struggling to keep up financially with the costs of education.

Summary

In summary, this chapter has highlighted the extent of socio-economic disadvantage and its impact on families and students, particularly in Australia. School psychologists play an important role in identifying and even advocating on behalf of students who are struggling to participate in education due to the costs involved. A key role that school psychologists can play is assisting schools to create policies and practices that remove cost barriers to educational inclusion and to form strong links with local non-government organisations (such as The Smith Family, or Foodbank Australia) to assist families and students with acquiring the essentials of life (such as food, shelter and clothing). It is concerning that the extent of poverty and disadvantage in Australia is resulting in poorer academic outcomes for such students and even a 'hunger crisis'. School psychologists cannot assume that poverty may not be an issue in their school, as it may well be playing a significant role in influencing the mental health, behaviour and learning aspirations and outcomes of students. Being aware of, and sensitive to, the presence of socio-economic disadvantage in schools and working together with teachers, families and agencies to mitigate its effects will ensure that all children will benefit from a future that only a good education can provide.

Case Study

Background. SG is a 13-year-old girl currently completing Year 8. Her teacher's appraisal of her

was that she was a polite, cooperative and quiet student who drew little attention to herself and had a consistent group of friends. Mid way through Term 3, two of her teachers (her homeroom teacher and English teacher) realised she was having difficulty keeping up with her studies and was missing school regularly. Her homeroom teacher noted that SG had been absent 12 out of the past 25 school days. When contacted by the school, SG's father reported that SG had been sick and could not come to school. SG's English teacher added that she had failed to complete any homework in the past 5 weeks and did not submit the last two assessment pieces. She compared this to SG's performance in the previous two school terms during which she had completed homework 50 % of the time and submitted every assessment piece, albeit late on four of the six tasks. The English teacher assessed SG's academic performance as below average but also indicated that she rarely participated in class and was often tired. During Term 3, SG's homeroom teacher observed that she continued to be with her group of friends during school hours but seemed a little withdrawn. After sharing their concerns about SG, her teachers decided to refer this matter to the school psychologist.

Assessment. The school psychologist contacted SG's father, initially by telephone. The school psychologist discovered that SG was the oldest of four siblings who lived with their father in a privately rented house. Her mother had left the family home 4 years ago, at which time her father left his full-time job, and was now working part-time in a local factory, in order to care for the four children.

He confirmed that SG had been absent from school for a significant amount of days, stating that, on each occasion SG had said to him that she was sick and remained in bed most of those days. He had not taken her to see a doctor as she seemed to recover towards the end of each day, even preparing an evening meal for the family. Based on the phone conversation it was evident that SG's father had his own health issues (primarily obesity-related Type II diabetes) and had struggled financially bringing up four young children on his own. As a result he had increasingly relied on SG to assist with caring for the younger children.

The school psychologist reviewed the transition report and notes from SG's primary school. In Year's 3 and 5, SG's NAPLAN results were, respectively, band 1 ('below the national minimum standard') and band 5 ('the lowest end of the national minimum standard'). Her primary school teacher described SG as a quiet student who usually completed classwork but struggled to understand all concepts and rarely sought assistance from teachers. The primary school noted that SG's father had attended some of the parent–teacher interviews, expressed interest in SG's progress, but beyond that had no other involvement with the school. SG's NAPLAN results in Year 7 were at band 4 level, also being 'below the national minimum standard'.

All of SG's subject teachers were asked to provide input into SG's current academic performance on the following academic factors: completing classwork, completing homework, submission of assessment pieces and performance on assessment pieces. In addition, they were also asked to compare each of these factors with SG's performance in the previous two terms. Reports from all teachers were consistent with those reported earlier: SG was a below average student but was cooperative and polite. Her science teacher noted the one exception; when offered respectful, but insistent, individual classroom assistance, SG had responded positively, i.e. by asking questions, seeking additional assistance outside of class, and submitting a draft of one of her science reports for comment.

The school's Home Liaison Officer (HLO) was consulted and a home visit was deemed appropriate. The HLO visited the home on three separate occasions, twice during school hours (one occasion in which SG was home) and once after school hours. The HLO provided additional information that SG's father had no other family support and had developed a hoarding issue over several years; causing additional problems in maintaining the house and keeping up with general housework.

In several meetings with the school psychologist, SG stated that she liked school mainly

because her friends were there, but had an ambivalent view of future educational opportunities. SG reported that her friends had always been very important to her but she had lost some interest in them in recent months. Exploring this issue further, the school psychologist discovered that SG's friends had only recently started socialising outside of school, including visiting each other's homes. Embarrassed by her family and home situation, SG had not invited friends to her home and had developed significant anxiety about how this would affect her future social standing amongst her group of friends. She had begun to feel anxious about coming to school as her friends now often talked about what they were doing outside of school and she was not part of this. Another source of anxiety was the upcoming school camp. SG had not shown the camp notice to her father because there was a $100 fee attached. She knew her father would not be able to afford this and did not know how to let her teacher know that she would not be going on camp. She found herself experiencing a stomach ache whenever the camp was discussed in class or amongst her friends. It was particularly difficult because the theme of much of the class work seemed to be focused around the location of the camp—which was to an old mining town.

Treatment. A treatment plan, coordinated by the school psychologist, included SG's homeroom and subject teachers, the HLO officer and the student welfare coordinator. The multi-pronged plan targeted academic engagement and achievement, engagement with extra-curricular activities, treatment for anxiety and social skills training, and providing additional support and interventions for the family.

A learning plan was developed with all of SG's teachers, the focus of which was to engage SG more in her academic work and achievement, and measured by her NAPLAN scores. Specific elements of the learning plan also included:

- Subject teachers engaging directly with SG in class (initially one on one, but with the long-term intention of encouraging SG to participate more in class discussion and activities)
- Identifying SG's skills in each subject and teachers providing specific activities and targeted support in order to further advance these skills
- Developing targeted learning plans for identified skill deficiencies.

SG's homeroom teacher was asked to identify appropriate extra-curricular activities within the school and facilitate SG's engagement. SG was referred to the existing school homework group that met Tuesdays and Thursdays after school, offering a structured time and place to complete homework and study but also additional teacher assistance. SG was invited to the school's existing breakfast club as SG reported that, with helping her younger siblings to get ready for school, she often did not have time to have breakfast herself.

The HLO and student welfare coordinator engaged with SG's father to link in with the family GP and access a health assessment and management plan for each family member. In collaboration with the GP, referrals were made to a dietician at the local public hospital to assist SG's father in providing nutritional meals on a small budget, and referral to a home help service, which provided home help on a fortnightly basis.

The student welfare coordinator made referrals to a local community organisation that were able to provide funding for SG to attend four school holiday programmes with a similar aged group of students over the next 2 years. The same agency was also able to provide funding for school items, including a laptop for SG to do homework and an annual public transport ticket.

Together with the student welfare coordinator, the school psychologist approached the school principal to establishing a school scholarship programme to support students from disadvantaged backgrounds to attend extra-curricular activities (such as the school camp) and that benefit student learning and academic engagement. The school also linked in with an education-focused non-government organisation that was able to provide funds to assist students with the purchase of uniforms and other educational items. SG was the first recipient of this initiative and was able to attend the school camp.

Outcomes measures: In addition to regular counselling, the school psychologist monitored observations by teachers, NAPLAN results, attendance at homework group and breakfast club, level of engagement with school-based extra-curricular activities and participation in the holiday programme to ascertain treatment effect.

Test Yourself Quiz

1. What could a school psychologist do if they suspect that a number of children are attending school without breakfast?
2. How concerned should a school psychologist be if they suspect that a student is socially distancing him or herself due to factors related to their socio-economic background?
3. Think about your own local community, what resources are available to support schools and school psychologists to assist students and families facing economic hardship?
4. How can schools create stronger relationships with students and their families from low socio-economic backgrounds?
5. What can school psychologists do to ensure school leadership is aware of school barriers that may be preventing students from socio-economically disadvantaged backgrounds from participating fully in education?

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School Psychological Practice with Gifted Students

Jae Yup Jung and Frank C. Worrell

Although a number of different definitions of giftedness are utilised around the world (e.g., Sternberg & Davidson, 2005; Subotnik, Olszewski-Kubilius, & Worrell, 2011), the definition that is widely adopted by schools in Australia is the one proposed by the Canadian psychologist, Françoys Gagné. Gagné's differentiated model of giftedness and talent (DMGT; 2004, 2009) differs from most other models of giftedness used around the world due to its distinction of the concepts *giftedness* and *talent*, and its acknowledgement of underachievement among gifted individuals. The model has been adopted by various Australian state and territory education departments (Lassig, 2009), the Catholic education sector (Catholic Education Office, Archdiocese of Sydney, 2014), and many Independent schools (Independent Schools Victoria, 2014) which are not obliged to follow any particular definition of giftedness.

In the DMGT, Gagné (2009, p. 63) described *giftedness* as "the possession and use of outstanding natural abilities, called aptitudes, in at least one ability domain [i.e., intellectual, creative, social, perceptive, muscular, or motor control] to a degree that places an individual at least among the top 10 % of age peers." In comparison, *talent* is described as "the mastery of systematically developed abilities, called competencies (knowledge and skills), in at least one field of human activity [including the various academic, occupational, and sports fields] to a degree that places an individual at least among the top 10 % of age peers who have been active in that field" (Gagné, 2009, p. 63). Gagné argued that giftedness may be transformed into talent through the systematic pursuit of a program of activities, and with the aid of favourable intrapersonal (e.g., mental characteristics, physical characteristics, and motivation) and environmental (e.g., social background, cultural background, parents, and teachers) conditions.

Gagné (1995, 2000) utilised a larger prevalence estimate for the gifted and talented (i.e., 15 %) in earlier versions of DMGT. Consequently, some Australian schools adopt the 15 % threshold in their identification of, and educational provision for, gifted students. By comparison, prevalence estimates proposed in other models of giftedness used around the world range from 1 to 20 % of the general population (Gagné, 1998; Renzulli, 2005).

Gross (2000) contended that it is important to acknowledge different *levels* of giftedness among

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gifted youth. With respect to the domain of intellectual giftedness, Feldhusen (1993) proposed a categorisation system using five bands of IQ scores, with decreases in the frequency with which students appear at the higher levels. Students in the lowest band (i.e., IQ 115–129) are defined as *mildly* gifted and appear in substantially greater numbers (i.e., prevalence of between 1:6 and 1:44) than students in higher bands (e.g., *moderately* gifted [IQ 130–144] with a prevalence of between 1: 44 and 1:1,000 and *highly* gifted [IQ 145–159] with a prevalence of between 1:1,000 and 1:10,000). The highest band is labelled *profoundly* gifted (IQ 180+) and these students appear in the general population with a frequency of less than one in a million. Gross (2000, p. 5) noted that, "a profoundly gifted child of IQ 190 differs from his or her moderately gifted classmate of IQ 130 to the same degree that the latter differs from an intellectually handicapped child of IQ 70." The recognition of different levels of giftedness may be particularly important in a country such as Australia, as its most widely adopted definition of giftedness identifies a fairly large number of students (Gagné, 2009; Gross, 1999).

Attitudes Towards Giftedness and Gifted Education

The Australian public generally appears to view giftedness and gifted education with a degree of apathy and opposition (Gross, 1999; Lassig, 2009; Watters & Diezmann, 2001), related, in part, to the egalitarian values of Australian society (Gross, 1999; Hofstede, 2001; Robinson, 1992). Indeed, Gross (1999) has noted a confusion of the concept of giftedness (measured normatively with others) with *strengths* (measured in comparison to an individual's other areas of performance), and a common belief in Australia that all children of a particular age need to be provided with identical educational provisions. The one exception to this belief is in attitudes towards giftedness in sport, where high level achievements are strongly encouraged and applauded (McCann, 2005; Robinson, 1992).

The egalitarian ethos of Australian society has directed attention and resources to the provision of appropriate educational interventions for the most poorly performing students with a particular focus on this group's literacy and numeracy (Lassig, 2009; Mullis, Martin, Gonzalez, & Chrostowski, 2004). Even among educators who are sympathetic to the needs of gifted students, many appear to consider gifted education to be an optional "extra" that ultimately diverts resources from student groups who are seen to have more immediate and *pressing* needs (Jarvis & Henderson, 2012). Recently, however, there has been political rhetoric in Australia about fostering knowledge and creativity for the knowledge economy, and an acknowledgement of the possible role that the most highly able students may have in improving the country's international competitiveness (Jung, 2014; Lassig, 2009).

History of Giftedness and Gifted Education

The education of gifted students has a long history dating back, possibly, thousands of years (Plucker & Callahan, 2014). The Ancient Greeks and Romans associated giftedness with divinity, and figures such as Lombroso, a criminologist and psychiatrist, and Nisbet, a journalist, suggested a link between giftedness and neuroses in the late nineteenth century (Robinson & Clinkenbeard, 2008). The first scientific study of giftedness only commenced at around the time of Darwin and Mendel's work on the variation of species in the mid-1800s. At this time, Galton investigated the family pedigrees of eminent British men across a range of domains, and concluded that giftedness may be an inherited characteristic (Robinson & Clinkenbeard, 2008; Tannenbaum, 1958). The work of Galton set the stage for the beginnings of rigorous scholarly inquiry into giftedness and gifted education in the twentieth and twenty-first centuries.

Other pioneers of study into giftedness include figures such as Lewis Terman, Paul Witty and Leta Hollingworth. Terman (1922) undertook a 50-year longitudinal study from the 1920s on

students with an IQ of 140 or above, and concluded that this group achieve exceptional academic results, are often better adjusted than non-gifted students, and are healthier than the general population (Robinson & Clinkenbeard, 2008; Terman, 1954), which are findings that were largely replicated by Witty (1940). In contrast, Hollingworth (1931) investigated gifted children of varying levels of intellectual ability and concluded that they are faced with a number of unique issues including difficulties in gaining access to interesting work, relating to peers with dissimilar interests, identifying and developing leisure activities, and learning when to conform and when to argue (Robinson & Clinkenbeard, 2008). It is noteworthy that Terman, Witty, and Hollingworth are all scholars from the United States, which continues to be the centre of much of the research effort and innovation in gifted education today (Gunn, 2014).

Since the time of Terman, Witty, and Hollingworth, interest in giftedness and gifted education in the United States, and by association, much of the Western world including Australia, appears to have reflected major events, issues, and concerns at the time. For example, the launch in 1957 by the then Soviet Union of the world's first artificial satellite, Sputnik, was seen as a serious challenge to the scientific supremacy of the United States, and a reflection of the standard of science education at the time (Gallagher, 2008; Gross, 2000). The response was major curriculum reform, with an emphasis in the domains of science and mathematics.

There have also been the periodic issue of reports in the United States commenting on the poor state of education for America's brightest students. In 1972, a report by the US Commissioner of Education, Sidney Marland, noted that (a) gifted provisions were being given low priority by governments, (b) gifted provisions did not reach large numbers of students, and (c) tremendous losses have occurred from the non-identificationand development of the abilities of gifted students (Gallagher, 2008; Marland, 1972). A decade later, the National Commission on Excellence in Education pointed to the low standards of performance of students generally, and gifted students in particular, in *A Nation at Risk* (Gardner, 1983). Similarly, *National Excellence* (Ross, 1993) revealed problems facing gifted students in schools such as an excessive repetition of curriculum, the lack of gifted education provisions in the regular classroom, and the lack of government funding for gifted education interventions in schools (Gallagher, 2008). Plunkett and Kronborg (2007) have noted that these reports caused considerable alarm in countries with broadly similar education systems to the United States, such as Australia.

Provisions for gifted students have existed in Australia since the late nineteenth century (Plunkett & Kronborg, 2007). Grade advancement for students, until the late 1940s, tended to be made on the basis of academic attainment rather than chronological age (Plunkett & Kronborg, 2007; Vialle & Geake, 2002). Moreover, Opportunity Classes (i.e., selective classes for gifted students) were established in primary schools in New South Wales in 1932 to provide educational opportunities that were not available to gifted students in regular classrooms. Around this time, streamed classes (i.e., ability-grouped classes) were also introduced into a number of primary schools (Robinson, 1992). The concentration of the gifted education provisions in primary schools, rather than secondary schools, in Australia in the first half of the twentieth century, may reflect the fact that until the 1940s, only the brightest students tended to receive a secondary school education (Vialle & Geake, 2002).

Thereafter, no substantial developments related to giftedness or gifted education appear to have taken place in Australia until the 1970s. In 1973, the Australian federal government responded to the publication of the Marland Report in the United States with the establishment of the Commonwealth Schools Commission to facilitate a needs-based program of financial assistance to government schools, which, for the first time, provided official recognition and financial support for gifted students (Plunkett & Kronborg, 2007). A report from this body in 1981 noted the lack of Australian research in gifted education, and the lack of any substantial

attempt to interpret international research for application in Australia (Gross, 1999). Unfortunately, the report appears to have had no material effect on gifted education policy at the time (Plunkett & Kronborg, 2007).

In 1985, the Australian federal government appointed a Senate Committee to investigate the status and quality of gifted educational provisions in Australia (Gross, 1999; Plunkett & Kronborg, 2007). The findings of the committee indicated (a) a lack of provisions for gifted students in most Australian schools, (b) the low quality of the few gifted education provisions that did exist, (c) underachievement of many gifted students, (d) a high school drop-out rate among gifted students, (e) the omission of gifted education instruction and practice in most pre-service teacher training programs, and (f) the unwillingness of many school principals to acknowledge the existence of gifted students in their schools (Commonwealth of Australia, 1988). Some of the recommendations of the Senate Committee included the need for pre-service and in-service training of teachers in gifted education, and the need to address the needs of gifted students from minority and disadvantaged backgrounds (Gross, 1999; Plunkett & Kronborg, 2007). Unfortunately, again, the report appears to have had minimal impact, due to the socio-political ethos at the time (Gross, 1999), and the lack of financial support to implement recommendations (Plunkett & Kronborg, 2007).

A second Federal Senate Inquiry was initiated in response to a renewed concern among gifted education professionals in Australia. In 2001, the second Senate Committee released a report that outlined 20 recommendations including the need for appropriate teacher education, the need for appropriate identification of gifted students, the need to provide a range of opportunities for gifted students, and the need for high achievement targets for gifted students (Collins, 2001; Jarvis & Henderson, 2012; McCann, 2005; Plunkett & Kronborg, 2007). Unlike the first Senate Inquiry, a fair level of financial support was provided to improve pre-service teacher education and the professional development of practising teachers (McCann, 2005). The *Gifted and Talented Education: Professional Development Package for Teachers* (Gifted Education Research, Resource, and Information Centre, 2005) was one tangible outcome of the committee recommendations.

Today, the general practices relating to gifted education in most Australian schools and education systems appear to be more grounded in educational and psychological research, more reflective of the latest developments in thinking and practice by professionals in gifted education, and more carefully monitored and planned than ever before (Gross, 1999; Plunkett & Kronborg, 2007). Moreover, all state and territory governments now have a formal and documented gifted education policy that is recommended for implementation in schools. Despite these developments, however, there is still considerable room for improvement to address the educational and related needs of gifted students in Australia.

Assessment of Giftedness

The definitions of giftedness that are adopted by schools and education systems provide a rationale and framework for the specific procedures to be used in the identification of gifted students (Gross, 1999; Spaniolo-DePouw, 2013). As Gagné's (1995, 2004, 2009) definition of giftedness is widely accepted in Australia, the identification practices implemented by gifted education coordinators, school psychologists, and teachers in Australian schools should aim to select individuals with a high level of ability in one or more domains (i.e., intellectual, creative, social, perceptive, muscular, or motor control) to a level that would place him or her in the top 10–15 % of same-age peers. Only psychologists (including school psychologists) have the authority to administer some objective identification instruments, including many individually administered tests of intelligence, such as the Weschler Intelligence Scale for Children IV Australian Standardized Edition (WISC-IV Australia; Wechsler, 2005) and the Stanford-Binet Intelligence Scales Fifth Edition (SB5; Roid, 2003), while gifted education coordinators and teachers may administer other identification instruments,

such as achievement tests and nominations (Davidson, 1997).

The identification of gifted students has always been a difficult exercise, due to factors such as the diverse range of gifted domains, the various levels of giftedness, and the existence of gifted students from diverse cultural and socioeconomic status backgrounds (Wellisch & Brown, 2012). Additionally, each gifted student may have developmental unevenness or uneven ability levels across domains (Wellisch & Brown, 2012). Consequently, multiple identification tools, including objective instruments (e.g., IQ tests and achievement tests) and subjective instruments (e.g., teacher nominations, parent nominations, peer nominations, and portfolios of work), are recommended by scholars to accurately identify gifted students (Borland, 2014; Jarvis & Henderson, 2012; Newman, 2008; Wellisch & Brown, 2012; Worrell, 2009). In their mega-model of giftedness, Subotnik et al. (2011) suggested that within such an approach, assessments should be made of both general and domain-specific abilities (see also Worrell & Erwin, 2011).

Multiple criteria identification approaches do appear to be practised in Australian schools. As an illustration, Jarvis and Henderson (2012) noted that a variety of information sources (i.e., individual IQ tests, group IQ tests, standardised achievement tests, academic performance, teacher nominations, parent nominations, peer nominations, and self-nominations), rather than a single information source, tend to be used in schools in South Australia in their identification practices. Nevertheless, there appears to be little consistency among the schools in the weighting given to each information source and the manner in which the information obtained is used to make decisions (Jarvis & Henderson, 2012). McBee, Peters, and Waterman (2014) suggested that when data are collected using multiple criteria, it may generally be useful to use the *means* of multiple measures of ability and/or achievement. Moreover, in situations where there are severe consequences of misidentification and small student numbers (such as acceleration), it may also be useful to require preset standards on *all* selection criteria to be met simultaneously.

At present, multidimensional intelligence tests, such as the individually administered WISC-IV Australia and the Stanford Binet 5, appear to be the primary and most widely used, components of the assessment of gifted students (Newman, 2008; Wellisch & Brown, 2012). The WISC-IV is a popular instrument that is used around the world to assess the intellectual abilities of students between the ages of 6 years and 16 years and 11 months. Among the indices of intelligence generated by the WISC-IV are scores for verbal comprehension, perceptual reasoning, working memory, and processing speed, along with a full scale *g* score. Similarly, the Stanford Binet 5, which is the instrument with the richest tradition in the identification of gifted students, and designed for students of all ages, generates multiple indices of intelligence (including fluid reasoning, knowledge, quantitative reasoning, visual-spatial processing, and working memory, along with composite scores). Unlike the Wechsler scales, no Australian edition exists for the Stanford Binet 5, which has raised questions about the appropriateness of its use in Australia (Garred & Gilmore, 2009; Kamieniecki & Lynd-Stevenson, 2002). The standardisation samples for both the WISC-IV and Stanford Binet 5 included a number of gifted children (i.e., 63 for the WISC-IV and 202 for the Stanford Binet 5; Newman, 2008).

In order to identify gifted students from culturally diverse backgrounds, who may be disadvantaged by the cultural content of many intelligence tests, nonverbal tests of intelligence such as the Naglieri Nonverbal Test of Ability (NNAT, Naglieri, 1997), the Universal Nonverbal Intelligence Test (Bracken & McCallum, 1998), and the Raven's Progressive Matrices (Raven, Raven, & Court, 2003), have traditionally been recommended (Ford, Grantham, & Whiting, 2008; McCallum, 2003a, 2003b; Naglieri & Ford, 2003; Naglieri & Goldstein, 2009; Wellisch & Brown, 2012). Dynamic assessments, such as the Coolabah Dynamic Assessment (Chaffey, Bailey, & Vine, 2003), which utilise nonverbal instruments, and involve the creation of a non-threatening environment that involves the relevant cultural community (Wellisch & Brown, 2012), have been shown to be particularly useful in

the identification of gifted students from Indigenous backgrounds. Nevertheless, several scholars have noted that many nonverbal instruments have verbal directions and illustrations with cultural content, which can have a negative impact on student performance (Borland, 2014; Newman, 2008). Moreover, unlike the more traditional assessment instruments, the use of nonverbal instruments may limit the types of abilities that are assessed (Worrell, 2013).

Among the subjective measures used to identify gifted students, nominations by the teachers, parents, or peers of gifted students appear to be popular in school settings. The usefulness of such instruments may stem from the fact that the teachers, parents, and peers of gifted students may have a unique and privileged perspective due to the time they spend with gifted students (Banbury & Wellington, 1989; Borland, 2014). Indeed, parents may be in a particularly good position to evaluate their children's precocious cognitive development, creativity, energy, and persistence (Chan, 2000), whereas the peers of gifted students may be in the best position to assess characteristics such as leadership. Nevertheless, of the different types of nominations, a number of teacher nominations have been found to have a level of effectiveness that is comparable to the levels of effectiveness achieved using standardised measures [e.g., phi coefficient of .29 for teacher nomination and .34 for an IQ test in Gagné (1994); phi coefficient of .51 for teacher nomination and .68 for a standardised test in McBee (2006)]. Interestingly, Borland (2014) has suggested that the optimal format for nomination instruments may be narrative recommendations detailing the reasons why particular students may be best served in gifted programs, rather than checklists or rating scales, some of which may be psychometrically imprecise and manipulable.

Accommodations for Gifted Students

A number of educational programs and provisions are available for gifted students in Australia, reflecting, to some extent, the diverse gifted education accommodations that have been developed around the world (Spaniolo-DePouw, 2013). The specific accommodations found in Australian schools include (a) curriculum differentiation within regular classrooms, (b) ability grouping (e.g., selective classes and selective schools), (c) acceleration options (e.g., grade acceleration, subject acceleration, early school entry, early university entry, and dual enrolment in more than one institution), (d) enrichment activities that are either provided through pullout/withdrawal programs or by external organisations, (e) independent learning (e.g., Individualised Education Programs), (f) academic competitions, and (g) mentorships (Jarvis & Henderson, 2012; Jung, 2014; Jung, Young, & Gross, 2015; McCann, 2005; Merrotsy, 2003; Plunkett & Kronborg, 2007). The decisions on the specific accommodations that are offered to gifted students generally appear to be made collectively by the principal, teachers, and school psychologists at each school (New South Wales Department of Education & Communities, 2004; South Australian Department of Education and Child Development, 2012; Western Australian Department of Education, 2011). Unfortunately, it is rare for every option to be available in every school, possibly due to factors such as the levels of staff training in gifted education, the views of the leadership on gifted education, the availability of resources, and school culture (Jarvis & Henderson, 2012; Jung, 2014).

One of the more common gifted education accommodations is curriculum differentiation within the regular, mixed ability classroom (Jarvis & Henderson, 2012). Some useful curriculum differentiation approaches for gifted students include the use of one or more curriculum design models found in the gifted education literature (e.g., VanTassel-Baska's Integrated Curriculum Model, 1994), and the incorporation of differentiation strategies, such as a requirement for conceptual thinking, a requirement for higher order thinking, the transfer of knowledge into new contexts, a reduction of scaffolding, a reduction of structure, the offering of choice, the use of real life tasks, and the use of multidisciplinary tasks (Forster, 2010). Unfortunately, there are some questions about the effectiveness of some

of the differentiation practices used in Australian classrooms, as many of the teachers who are coordinating the differentiation efforts do not have any formal training in gifted education (Jarvis & Henderson, 2012).

Ability grouping is an educational provision that is widely available in Australian schools for both gifted and non-gifted students. Streaming appears to be prevalent within schools and across school sectors in both the primary and secondary school settings (Jung, 2014). Moreover, at the primary school level, 75 of the more than 1500 government schools in the state of New South Wales offer fully selective classes for gifted students in Years 5 and 6 ("Opportunity Classes"; Australian Bureau of Statistics, 2013; New South Wales Department of Education & Communities, 2014b). Another form of ability grouping, selective schools for gifted students, do not appear to be common at the primary school level in Australia (New South Wales Department of Education & Communities, 2014d; Queensland Department of Education, Training, and Employment, 2014; Victorian Department of Education & Early Childhood Development, 2014).

At the secondary school level, most states appear to offer selective schools for gifted students, particularly in the government sector. States including New South Wales, Queensland, and South Australia have schools that provide advanced opportunities for gifted students in particular subject areas (e.g., language, technology, sports, creative and performing arts, health sciences, and music; McCann, 2005; New South Wales Department of Education & Communities, 2014c; Queensland Academies, 2014). Additionally, selective schools exist that cater for students who are intellectually gifted *across* subject areas. In New South Wales, students are allowed entry into one of 47 academically selective high schools on the basis, largely, of their performance on an ability test (reading, writing, mathematics, and general ability) and performance in English and mathematics at the primary school level. In 2012, 4,126 Year 7 places existed at these schools, which represented 4.74% of total Year 7 student places in schools across the state of New South Wales (Australian Bureau of Statistics, 2013; New South Wales Department of Education and Communities, 2012).

In Victoria, 36 secondary schools participate in the *Select Entry Accelerated Learning* (SEAL) program, which places gifted students in a selective class in a high school, and offers them the opportunity to study an advanced curriculum with other gifted students, with an option to accelerate by 1 year (Victorian Department of Education and Early Childhood Development, 2014). Consequently, ability grouping, curriculum differentiation, and acceleration may be simultaneously offered in the SEAL program. Nevertheless, each program appears to be different and responsive to the unique needs of gifted students at each individual school (Victorian Department of Education and Early Childhood Development, 2014). Although fewer in number, selective secondary schools that cater to intellectually gifted students across subject areas are also found in the states of Western Australia and South Australia (McCann, 2005; Perth Modern School, 2014).

Acceleration is another educational provision that is available for gifted students in Australian schools. In South Australia, acceleration options such as grade skipping and subject acceleration were reported as being available by more than half of the participating schools in Jarvis and Henderson's (2012) study. Moreover, three South Australian secondary schools participate in the IGNITE program, where students are able to complete Years 8–10 in 2 years (McCann, 2005). In New South Wales, acceleration is considered to be a "readily available educational alternative" at any stage of formal schooling for gifted students, according to the New South Wales Board of Studies, Teaching, and Educational Standards (BOSTES [formerly the Board of Studies], 2000, p. 16). Similarly, in Queensland, subject or grade acceleration is considered to be an appropriate option for gifted students whose needs are not being met by curriculum differentiation or extension, subject to a successful trial acceleration placement of at least 6 weeks (Queensland Department of Education, Training, and Employment, 2014).

Early university entry, which may be described as the commencement of study at university at an earlier than usual age, is another option for the most gifted students (Jung et al., 2015). Of the more than 40 universities in Australia, most appear to accept gifted students who have completed their secondary education, regardless of age (Jung et al., 2015). Specifically, 35 universities have no minimum age requirement for entry, and 33 universities participate in dual enrolment programs (Young, Rogers, & Ayres, 2007). One dual enrolment program ("*HSC—University Pathways for Talented Students*") is offered jointly by The University of New South Wales, Macquarie University, and The University of New England and allows entry to high school students who have completed Year 12 in one subject to a high standard, after subject acceleration (New South Wales Board of Studies, Teaching, and Standards, 2014). Participating students are able to make a choice from more than 70 university courses (many of which are offered online) in the fields of arts, science, and social science. Only 13 Australian universities have shown a willingness to offer early fulltime enrolment to students who have not completed high school (Young et al., 2007).

Other accommodations for gifted students include various enrichment options offered through part-time withdrawal or pullout programs. Defined as any option "that supplement(s) or go(es) beyond standard grade level work, but do(es) not result in advanced placement" (Davis, Rimm, & Siegle, 2011, p. 127), enrichment activities often focus on the development of general thinking skills and higher order thinking skills (Jarvis & Henderson, 2012). The Western Australian Department of Education (2014) runs one such enrichment program (i.e., the *Primary Extension and Challenge program*; PEAC) on a weekly basis for gifted students in Years 5, 6 and 7, with the aim of providing intellectual challenge, opportunities for interaction with practicing experts, and the development of higher order thinking and investigation skills. Enrichment programs are also offered by organisations external to the schools that gifted students attend. The Gifted Education Research, Resource, and Information Centre (GERRIC) at The University of New South Wales offers student enrichment programs in a wide range of disciplines during school holidays. To be accepted into the GERRIC student programs, prospective students need to demonstrate their eligibility in one of a number of ways (e.g., IQ test scores, standardised achievement test scores, placement in an academically selective class or school, the holding of an academic scholarship, scores in academic competitions, or a letter from the school; GERRIC, 2014).

Accommodations for Gifted Students in Remote Areas

Gifted students from rural and geographically isolated areas appear to be significantly disadvantaged. Bailey, Knight, and Riley (1995) noted these students may be faced with a number of unique issues that their urban counterparts are unlikely, or less likely, to face, including (a) ambivalence in the attitudes of their families towards education in general, (b) the stronger influence of gender stereotypes on subject and career choices, (c) a strong egalitarian ethos that may result in the perception that separate educational provisions for gifted students may be divisive, (d) fewer opportunities for interaction with other gifted students, (e) the small numbers of gifted students to justify special educational programs, (f) a general lack of access to gifted education resources, and (g) a general lack of support personnel. There also appear to be positive aspects of geographic isolation, including a greater need for independence and more opportunities to proceed at one's own rate of learning (Bailey et al., 1995).

Fortunately, most state and territory government policies in gifted education recommend that special consideration be given to gifted students from remote areas (McCann, 2005), although the range of educational provisions available may not be as diverse or as accessible as provisions available in urban areas. In rural New South Wales, 18 Opportunity Classes draw students from a 100 km radius of the school, resulting in

long commuting times for students. Due to the small numbers of eligible students, these classes tend to be composite classes of students in both Years 5 and 6, where each student remains in the same class over a 2 year period. Academically selective classes for gifted students also exist at the secondary school level in regional areas (New South Wales Department of Education and Communities, 2014a). Unfortunately, no transportation support is provided for students in these classes, which means that some students need to rely on private transport, while others are unable to attend due to logistical or financial reasons (Wood & Zundans-Fraser, 2013).

Alternatively, some remote areas in Australia draw gifted students from a number of schools for participation in a part-time gifted withdrawal program. Wood and Zundans-Fraser (2013) described one such program where students from five primary schools, who were screened for eligibility using the results of an academic achievement test, were withdrawn for one day a week of advanced and fast paced study. In the program, three volunteer academics from the local university were involved in the development of an appropriate curriculum, the instruction of participating students, and the management of the program. The benefits of the program (i.e., improvements in student attitudes towards school, increased student self-esteem, and expanded student social and academic interests) appeared to substantially outweigh the minor difficulties in coordination among the participating students and schools.

The New South Wales Department of Education and Communities (2014e) has also established a virtual selective class, admission into which is determined using the criteria used for admission into academically selective high schools in New South Wales. Students who are enrolled in the class are required to simultaneously enrol in, and attend, their local secondary school. Students enrolled in the class have opportunities to interact with their teachers and other students in the class, online, on a daily basis, and face-to-face, at residential schools held twice a year. Although the need for geographic proximity is negated, some limitations of the virtual selective class include the limited opportunities for physical interaction with ability peers and variations in the level of support provided by the local school (Wood & Zundans-Fraser, 2013).

Students of Indigenous backgrounds are one particular group of students commonly found in remote areas. The emerging literature on gifted students of Indigenous backgrounds, in Australia and around that world, suggests that this group is substantially underrepresented in gifted programs and provisions (Chaffey, 2008; Chaffey et al., 2003). Some possible reasons for their lack of representation may include (a) a high drop-out rate from schooling, (b) a pattern of underachievement in academic settings, (c) a lack of visibility as gifted students due to a tendency to underperform in tests of ability, (d) being misunderstood by teachers who may lack training in gifted and/or multicultural education, and (e) being misunderstood by their families who may lack an understanding of giftedness (Chaffey, 2008; Chaffey et al., 2003; Cooper, 2005). Moreover, gifted students of Indigenous backgrounds often become *minorities within minorities* who may experience a dilemma between academic achievement and affiliation with their cultural group (Blaas, 2014; Cooper, 2005).

To increase opportunities for Indigenous students to participate in gifted programs, greater care appears to be necessary in the *design* of the gifted programs and provisions. Cooper (2005) noted that traditional accommodations, which tend to be appropriate for gifted students from European and middle-class backgrounds, may not to be particularly useful for gifted students from Indigenous backgrounds. To be effective, such programs may instead need to incorporate measures that address the unique needs of this group, including the need to remove any academic skill gaps and any socio-emotional barriers to academic engagement (Chaffey, 2008). Moreover, such programs may be more successful if they are supported by local Indigenous communities (Chaffey et al., 2003; Cooper, 2005).

Some of the features of the successful *Moorditj Kulungar* program in Western Australia, which was run with the extensive involvement of the

local Indigenous community, included content that was varied, challenging, and student-centred, and with an Indigenous focus (e.g., content on Indigenous identity, Dreamtime stories, and bush food). The program also incorporated a substantial remediation component, and a component supporting students in (a) developing questioning attitudes, (b) understanding the problems they may face as they align their cultural values with the dominant culture, and (c) dealing with peer pressures not to succeed. For the educators in the program, there was a promotion of positive attitudes towards cultural differences and training to increase awareness of Indigenous culture (Cooper, 2005).

Educational Development of Gifted Students

Gifted students appear to possess a number of characteristics that may be conducive to a high level of academic achievement. Australian and international researchers agree that gifted students tend to acquire information, retain information, process information, and solve problems better, faster, and at earlier ages than other students (La Praik & Wyver, 2007; Robinson & Clinkenbeard, 2008; Wolf & Chessor, 2011). Furthermore, gifted students appear to be more intrinsically motivated, and appear to use different and more efficient meta-cognitive strategies than the general student population (Robinson & Clinkenbeard, 2008). Consistent with international research, Australian research also suggests that gifted students may be more likely than non-gifted students, to attribute their successes and failures to their own effort, rather than to luck (Chan, 1996; Robinson, 2002).

Nevertheless, whether gifted students are able to make use of their unique abilities and characteristics may depend on the appropriateness of the available educational interventions. In the situation where suitable educational provisions are provided, positive academic and educational development may result. For example, Plunkett and Kronborg (2007) noted that a 10-year longitudinal study of a cohort of participants in the SEAL program in Victoria found that the accelerated students achieved highly, and became more independent and autonomous. In contrast, an inadequate and undemanding curriculum, and a requirement to work at the level of age peers, may have lead to significant underachievement for many highly gifted students in Gross (2004). Unfortunately, academic underachievement among gifted students often goes unnoticed, as their school achievement levels may still appear acceptable, and even well above the average of the general student body (Gross, 2004).

Socio-emotional Development of Gifted Students

With respect to the socio-emotional development of gifted students, a number of perspectives appear to exist (Plucker & Callahan, 2014). Some scholars hold the view that gifted students have unique characteristics, such as a heightened level of sensitivity, perfectionism, tendencies towards introversion, independence, and a comfort with solitary activities, which may be seen as risk factors for socio-emotional difficulties (Blaas, 2014; La Praik & Wyver, 2007; Robinson, 2008). Highly gifted students may also exhibit a tendency to question rules, be overly judgmental, rebel against a perceived lack of fairness, and be intolerant of hypocrisy (Gross, 2004). The expression of many of these characteristics may become a source of ridicule or criticism from age peers (Robinson, 2008; Wolf & Chessor, 2011).

Another group of scholars suggest that gifted students are not inherently socially vulnerable (Robinson, 2008; Robinson & Clinkenbeard, 2008). Indeed, the basic needs of gifted students, including stability and security in a family, a comfortable peer group, acceptance from others, and opportunities to develop one's abilities, may be no different to those of the general student population (Robinson, 2008). Social-emotional issues for gifted students may nevertheless arise due to a poor match between the anti-intellectual and unsupportive environments faced by many gifted students, and the abilities, interests, and needs of this group. Wellisch, Brown, and Knight

(2012) suggested that such an incompatible environment may lead to a pattern of misunderstanding of gifted students by their families, teachers and peers.

In practice, some of the socio-emotional difficulties faced by gifted students include social isolation (Blaas, 2014; Gross, 2004), difficulties in making friends (Blaas, 2014; La Praik & Wyver, 2007; Wolf & Chessor, 2011), loneliness (Robinson, 2008), a high level of victimisation by peers (Wolf & Chessor, 2011), depression (Gross, 2004; Robinson, 2008), hopelessness about the future (Robinson, 2008) and general unhappiness (Gross, 2004). In addition, many gifted students may experience the forced choice dilemma (Gross, 1989, 1998), which refers to belief that a choice needs to be made between achieving academic success and gaining the acceptance of peers, due to a perception that the peers of gifted students may be hostile towards academic success. The phenomenon has been extensively investigated in Australia (Jung, Barnett, Gross, & McCormick, 2011; Jung, McCormick, & Gross, 2012).

Unfortunately, some gifted students with socio-emotional difficulties show maladaptive responses. Specifically, research suggests that these gifted students may form negative self-concepts (Wolf & Chessor, 2011), lack motivation (Gross, 2004; Wolf & Chessor, 2011), engage in self-sabotage (Wolf & Chessor, 2011), avoid failure (Wolf & Chessor, 2011), deny their giftedness (Swiatek, 1995), and conceal their knowledge and abilities (La Praik & Wyver, 2007). The more constructive and adaptive coping strategies, which could be promoted by gifted education coordinators, school psychologists, and teachers, such as participation in extracurricular activities, the provision of academic assistance to other students, involvement in group experiences, and engagement in multi-age community activities, do not appear to be as widely utilised (Robinson, 2008; Wolf & Chessor, 2011).

Of note, positive socio-emotional outcomes have been observed in multiple studies where appropriate educational interventions have been provided for gifted students. For example, the cohort of accelerands in the SEAL program noted by Plunkett and Kronborg (2007) not only achieved academic success, but also displayed more positive personality development patterns (e.g., autonomy, independence) than a comparison group of equally able non-accelerands. Moreover, Gross (2004) noted that the gifted students in her study had, on average, disturbingly low levels of social self-esteem, with only those students provided with appropriate educational interventions (in the form of acceleration and radical acceleration), being exceptions to the rule. With respect to the impact of gifted programs and provisions generally, Lea-Wood and Clunies-Ross (1995) noted that the mean social self-esteem of gifted girls attending various schools with different gifted programs and provisions were higher than for girls who did not attend such schools.

Fortunately for gifted students, by the upper grades of high school, same-age peers tend to be more tolerant of those who are different. It is also during this time that gifted students may have a greater number of options for finding better academic and social matches outside of their schools (Robinson, 2008). Moreover, many gifted students who proceed to university after high school appear to thrive in the new environment. Nevertheless, tertiary study may present new challenges, such as a need to adapt to the differences from high school (e.g., teaching style, scheduling, size/anonymity of classes, expectations, and freedoms), the shock at encountering classmates of higher ability, and the increasing importance of time management (Robinson, 2008).

Ethical Issues

There are several domains of ethical practice that exist for school psychologists working with gifted students. In particular, ethical issues may arise during (a) the identification of gifted students, (b) making programming and placement decisions, and (c) the provision of counselling support (Davidson, 1997; Thompson & Morris, 2008). Nevertheless, all professionals dealing with gifted students have a general ethical responsibility to maintain knowledge of current devel-

opments in research, practice, and policy that may have an impact on their work (Thompson & Morris, 2008).

The Australian Psychological Society requires that the administrators of psychological assessments (e.g., intelligence tests) abide by the principles of *responsibility*, *competence*, and *propriety* (Australian Psychological Society, 1998; Davidson, 1997). Consequently, psychologists are required to accept responsibility for the administration, scoring, and interpretation of these assessments. Furthermore, they need to be technically competent (e.g., knowledgeable about testing in general, the assessments themselves, and the constructs that the tests measure), contextually competent (e.g., knowledgeable about test taker behaviour and background characteristics that may influence test performance), and culturally competent (e.g., knowledgeable about test taker cultural beliefs and values). Moreover, the administrators need to give priority to the welfare of test takers over the welfare of any other parties throughout the assessment process (Australian Psychological Society, 1998; Davidson, 1997).

To act in accordance with these ethical principles, some procedures that may be particularly salient for those working with gifted students during assessment may include a need to (a) verify that an adequate number of assessment instruments exist to permit the conduct of a thorough evaluation of giftedness, (b) evaluate available assessment instruments to ensure that they are psychometrically valid and reliable, and developed using appropriate norm samples, (c) evaluate the appropriateness of the language of the assessment instruments for the students being tested, (d) use the most recent version of the assessment instruments, and (e) administer the assessment instruments under standardised conditions (Thompson & Morris, 2008). It is noteworthy that psychologists in Australia are specifically required to (a) acknowledge a preference for multi-method assessment over unitary assessment, (b) show proficiency in the appropriate selection of assessment instruments on the basis (among other criteria) of the psychometric properties of the available instruments, and (c) demonstrate mastery in the skilful administration of the current version of individual intelligence tests such as the WISC IV, WPPSI-III, Stanford Binet 5, or the Kaufmann Adolescent and Adult Intelligence Test (Australian Psychology Accreditation Council, 2010; Davidson, 1997).

After the administration of assessment instruments, school psychologists are required to consider a number of factors during the interpretation of the assessment results. These factors include the standard error of measurement associated with each student's score, the systematic rise in IQ scores over the years (i.e., Flynn effect), and whether the administrator had an adequate level of contact with the test taker prior to the administration of the instrument (Davidson, 1997). They also need to consider the test taker's ability to follow instructions, motivation, and distractability, along with the impact of factors such as background noise, temperature and lighting (Thompson & Morris, 2008). Simultaneously, Davidson (1997) has noted the need for an acknowledgement of the limitations of each assessment instrument, and for any explanations of results to be comprehensible to users.

Any programming and placement decisions need to be made on the basis of the data collected, rather than the demographic characteristics of the gifted student who was assessed. Moreover, a responsibility exists for the school psychologist to gain familiarity with the various programs that are available, and for each option to be thoroughly considered for their suitability before a placement decision is made (Thompson & Morris, 2008). Consistent with the principle of justice, all students need to be given a fair and just chance of obtaining appropriate educational provisions (Davidson, 1997).

Given the possible academic and socio-emotional difficulties faced by many gifted students, gifted students may have unique counselling needs related to meeting performance demands. School psychologists dealing with gifted students therefore have a responsibility to gain familiarity with the literature on the major academic and socio-emotional challenges facing gifted students, and the various counselling methods that have been shown to be effective

with this group (Thompson & Morris, 2008). Indeed, multiple scholars (Silverman, 1993; Yoo & Moon, 2006) suggest that adolescence may be the period during which there is a greater need for counselling support, although it is noted that gifted students' level of socio-emotional concerns have generally been found to be comparable to or lower than students who are not identified as gifted (Cross, Cassady, Dixon, & Adams, 2008; Deary, Whalley, & Starr, 2009). In any case, school psychologists need to work in the best interests of gifted students, and if appropriate, make a referral to another professional with the requisite knowledge and skills (Thompson & Morris, 2008).

Legal Issues

Legislation and a number of government policy documents provide the basis for the educational support of gifted students in Australia. For example, in the state of New South Wales, the Education Act 1990 (NSW Parliament, 2000) specifically recognises a state duty to ensure that (a) every child receives an education of the highest quality, (b) every child is assisted to achieve to his/her educational potential, and (c) opportunities are provided for every child with special abilities (McEwin, 2003). The only federal legislation that may offer legal protections for gifted students are four acts that prohibit discrimination on the basis of age, sex, disability and race (McEwin, 2003). More explicit recognition of the need to support gifted students comes in the form of state/territory policy and related documents [e.g., *Policy and implementation strategies for the education of gifted and talented students* issued by the New South Wales Department of Education and Communities (2004)] which outline the various means by which to accommodate for the needs of gifted students in educational settings.

In the situation where the specific needs of gifted students are not being met, a number of legal options appear to exist. One possible basis for legal action in Australia may be a common law case against school staff for *educational malpractice*, which refers to "an educator's failure to instruct, test, place, or counsel a student properly when such failure has resulted in emotional or intellectual harm" (McEwin, 2003, p. 3). Traditionally, allegations of educational malpractice have been prompted by a failure to correctly diagnose learning disabilities, adequately address learning difficulties, and impart basic literacy or numeracy skills (McEwin, 2003). To make a successful claim of educational malpractice, four elements (i.e., the existence of a duty of care, the breach of this duty through failure to take reasonable care, injury from a lack of reasonable care, and the foreseeable nature of the risk of injury) need to be established (McEwin, 2003).

A major point of contention in educational malpractice claims appears to be whether the duty of care by teachers extends to a duty to appropriately educate gifted students. Many international cases have floundered on this point due to a recognition by the courts that teachers cannot be held liable for the failure of students to learn, as the students themselves have a duty to learn (McEwin, 2003). Nevertheless, in the situation where a duty of care is recognised, a breach of this duty may be demonstrated by documentation of the school's ignorance of research in gifted education, ignorance of the link between educational practices and negative outcomes, ignorance of relevant government policy, and the non-training of staff in gifted education. To establish that injury has resulted from a lack of reasonable care, evidence is needed to show that the school has ignored expert advice and policies providing information on the consequences of an inappropriate provision for gifted students (McEwin, 2003).

Discrimination has also been the basis for a famous court case relating to gifted educational provisions in Australia. In Malaxetxebarria v Queensland (M1) 2006, damages were sought for the failure of the Queensland education department to allow a young gifted student to attend high school. In response to the complainant's claims of discrimination on the basis of age, the Queensland government argued that despite advanced reasoning abilities, the complainant lacked the social maturity to be placed with older

students in high school. The case was dismissed by the courts, as the Queensland government was found to have acted reasonably, in good faith, and in the best interests of the complainant in taking a cautious approach to acceleration. It is noteworthy that since the case was heard, the relevant state Act has been replaced with the Education General Provisions Act 2006, which may result in a different outcome for a similar future case (Cumming & Dickson, 2007).

The outcome of Malaxetxebarria v Queensland (M1) 2006 suggests that it may not be particularly difficult for educational authorities to defeat a claim of discrimination. Despite creating policies that endorse the need for gifted students to be appropriately accommodated for in schools, educational authorities in Australia appear to be very willing to challenge a student's complaint, and appeal a ruling against it, with far greater financial and legal resources than those of most families of gifted students (Cumming & Dickson, 2007). Moreover, Australian courts appear to be reluctant to consider educational policy matters in arriving at their decisions. Nevertheless, the courts do appear to require educational authorities to offer *proper* educational instruction and refrain from discrimination.

Future Directions for Practice and Research

Although substantial progress has been made in Australia in terms of practice and research in giftedness and gifted education, a number of areas are in need of further attention. One particular area is in the training of teachers in giftedness and gifted education (McCann, 2005). Given the pivotal role of teachers in educating gifted students, it is surprising that most Australian preservice teacher training programs do not incorporate a separate unit in gifted education, and no requirement exists for teachers to undertake ongoing professional development in gifted education. Similarly, the Australian Psychology Accreditation Council has no explicit requirement for tertiary institutions to provide prospective school psychologists with training in giftedness or gifted education in its accreditation standards (Australian Psychology Accreditation Council, 2010), even though school psychologists need to be educated about the appropriate methods for identifying gifted students and their broader role in helping schools and school systems design programming to support gifted students (Worrell & Erwin, 2011). Indeed, the multiple recommendations of the two Senate Committees relating to gifted education *training* have largely remained unaddressed.

Another of the unaddressed recommendations of the Senate Committees (Collins, 2001; Commonwealth of Australia, 1988) relate to the need for a nationally coordinated strategy for the education of gifted students. At present, there is substantial variation among the states and territories in the education of gifted students, as education at the primary and secondary levels is largely considered to be a responsibility of the state and territory governments. Consequently, and despite the wide adoption of Gagné's (2004, 2009) model, gifted students living in the different states and territories of Australia are identified using differing approaches and have a different range of educational provisions that are available to them.

At the level of individual schools, the literature suggests that there may be a general lack of focussed or coherent educational opportunities for most gifted students. Nevertheless, there appear to some dedicated teachers working to make a difference, often without any systematic support from school administrators or colleagues (Jarvis & Henderson, 2012). A starting point for individual schools facing difficulties in catering to the needs of gifted students may be in the development of a clearly articulated mission and vision for gifted education (Jarvis & Henderson, 2012). Such a mission and vision will need to be accompanied by an understanding of giftedness among staff at the school, the development of a school-wide strategy for the identification of gifted students, and the development of a coordinated set of educational interventions that are appropriate for the students who are identified as gifted. Professional development in giftedness and gifted education will need to become an integral component of any such efforts.

With respect to future directions for research, Plucker and Callahan (2014), in their review of the literature, noted a number of areas in giftedness and gifted education that are well understood, including the lack of challenge for gifted students in the regular classroom without differentiated instruction, and the largely positive academic outcomes of acceleration. Those areas where the empirical foundations are only evolving, and in need of further research, include the identification of gifted students, the socio-emotional development of gifted students, the development of creativity, and the usefulness of ability grouping as an educational provision. Furthermore, the research base on racially and ethnically diverse gifted students appears, as yet, neither broad nor deep (Worrell, 2014).

More generally, the field of giftedness and gifted education may benefit from more systematic efforts at data collection to enable a richer database for researchers (Plucker & Callahan, 2014). Additionally, there appears to be a need for the development of more psychometrically rigorous research instruments, the adoption of new and more diverse research designs, more replications of existing studies, and more interdisciplinary research with fields such as neuroscience (McCann, 2005; Plucker & Callahan, 2014; Robinson & Clinkenbeard, 2008). Dai, Swanson, and Cheng (2011) have also noted the need for more systematic and sustainable programs of research, and the need for greater cooperation and coordination among researchers. Nevertheless, greater funding of research will be needed before any substantial inroads into these future research directions may be possible.

Test Yourself Quiz

1. How is giftedness commonly defined in Australia?
2. What are the available options to assess giftedness?
3. Describe the various programs and provisions that are available in Australia to address the educational needs of gifted students.
4. Do the mental health needs of gifted students differ substantially from the needs of students who are not identified as gifted?
5. What are the possible ways to support the educational and socio-emotional development of gifted students?
6. What are the major ethical issues that need to be considered when dealing with gifted students?

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Suggested Readings

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School Psychological Practice with Gay, Lesbian, Bisexual, Transgender, Intersex, and Questioning (GLBTIQ) Students

Tiffany Jones and Jon Lasser

Introduction and Definitions

This chapter discusses how gay, lesbian, bisexual, transgender, intersex, and questioning (GLBTIQ) youth have been understood in psychology over time, providing key definitions and explaining how early understandings have developed into more recent conceptualizations and practice. Contemporary research data on GLBTIQ students in the primary and secondary years will then be presented, including statistics on experiences of bullying and mental health issues. Finally, the chapter describes the role of the school psychologist in supporting psychological health and well-being for different student groups within the GLBTIQ umbrella, and how this can be mediated against the different expectations in different Australian school contexts. A review of cultural issues for different cultural communities and parents will be provided as well as a case study, some information on training and legal issues, resources, and a quiz.

GLBTIQ youth are part of any school population whether government-run, privately-run, religious, selective or even home-schooling, elementary or secondary (GLSEN, 2012; Hillier et al., 2010). The research discussed below will show that it is safe to assume that no matter what the size of the school; there is always a probability that it contains some GLBTIQ students (and those with GLBTIQ family and friends) who could potentially benefit from school psychological services (whether or not they declare their identities or relationships at school). Both families and schools teach children from a young age that they have a sex identity (as male, female, or otherwise) related to their physical bodies—genitalia, DNA, chromosomes, and so forth (Butler, 1990). Children are often schooled into a gender identity (feminine, masculine, or otherwise) related to their clothing, mannerisms, behaviors, and social roles; and assumptions about what that means for their sexuality (in terms of whom and what they will find sexually and romantically attractive) (Jones, 2015). For GLBTIQ students, these three identity elements do not conform to either of the binary oppositional "masculine male heterosexual" or "feminine female heterosexual" identities that for much of modern history were purported as the only "psychologically healthy" identity norms.

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Gay/homosexual/same-sex attracted students are those whose sexual and romantic feelings are primarily for the same sex and who identify primarily with those feelings (Jones, 2015). Both males and females can identify as *gay*; however, it often refers mainly to homosexual males. **Lesbian students** are females whose sexual and romantic feelings are primarily for other females. Research suggests around 10% of people may be homosexual globally (Sears, 2005). **Bisexuality** contrastingly may count for over one-third of adolescents' sexual experiences (Sears, 2005), and its definition is more flexible. UNESCO defined a bisexual as "A person who is sexually and emotionally attracted to people of both sexes" (UNESCO, 2012, p. 6). Other concepts have also emerged (pansexual, bicurious, mostly heterosexual) which may expand the concept (Jones & Hillier, 2014). Halperin (2009) described 13 ways of conceptualizing bisexuals, and even this extensive list ignored contemporary trends for public performances of bisexual acts by young females (Fahs, 2009). Thus, "bisexual students" includes a range of people from those largely heterosexuals who may occasionally feel or act on same-sex attraction whether publicly or otherwise, to people for whom gender does not limit their attractions, through to gender diverse students who use bisexuality interchangeably with the term "pansexual" (signifying attraction/openness to males, females, intersex transgender, and/or other gender diverse people, for example; Smith et al., 2014). Another related term is Queer, which refers to a disruptive, fluid sexuality not easily categorized (and sometimes taken up as a political resistance to categorization itself).

Transgender students fall within a broad umbrella of identities, including those who identify as a sex different to the one assigned at birth and may choose to undergo sex affirmation/reassignment surgeries; or those who simply have particularly non-conforming gender identities and/or behaviors (there is a fairly even divide between the two types amongst Australian transgender students, Smith et al.). A *female to male (FtM) transgender person* was labeled female or intersex (or otherwise not strictly male) at birth and may identify as male, a transman or genderqueer, for example. A *male to female (MtF) transgender person* was labeled male or intersex (or otherwise not strictly female) at birth and may identify as female, a transwoman or genderqueer. *Gender Queer* people generally do not aim to become an "opposite sex" as such but may reject traditional gender expectations altogether through their dress, hair, mannerisms, appearance, and values (del Pozo de Bolger et al., 2014; Jones & Hillier, 2013). When discussing transgender identities, one can use the term "cisgender" as an antonym—referring to people whose sense of self matches the sex assigned at birth (Serano, 2007).

Intersex students account for around 2–4% of the student population (OII Australia, 2012; Sears, 2005), and their difference is biologically defined. They have physical, hormonal, or genetic features that are neither wholly female nor wholly male; or a combination of female and male characteristics. Many forms of intersex exist (OII Australia, 2012—including those related to androgen insensitivities or having XXY chromosomes, for example). Intersex conditions may be diagnosed prenatally, apparent at birth, apparent at puberty or else may only be discovered when trying to conceive (OII Australia, 2012). Some intersex people identify more comfortably as male or female, some identify fluidly or changeably throughout their lifetimes. Unlike hermaphrodites (with which they are commonly confused) intersex people do not have a combination of fully functioning male and female sex organs (a feat impossible in mammals), and thus applying the term hermaphrodite is seen as offensive (OII Australia, 2012).

Historic and Current Practice in GLBTIQ Issues

Psychologists might be surprised to discover that a portion of GLBTIQ people can be quite wary of them. Their wariness, unfortunately, comes with good reason—psychology has not always been a friend to GLBTIQ people. It has, at times, been an enemy as some historic psychologists, psychiatrists, doctors, and surgeons attempted to

undo GLBTIQ peoples' differences through unwelcome and even torturous "treatments" (APA Task Force on Appropriate Therapeutic Responses to Sexual Orientation, 2009; APS, 2000). When working with GLBTIQ clients, one must have an understanding of, and be careful to contribute to overcoming, the discriminatory background of the psychological professions that unfortunately lives on in the work of a few errant individuals even to this day. GLBTIQ people have been framed differently in psychology over time, and the pathway from early understandings to more recent conceptualizations was fraught with divergent beliefs, heated debates between psychologists and street protests by the GLBTIQ community. Let us now consider historic, and then contemporary, framings for understanding GLBTIQ people.

Historic

Inversion, GID, and Ex-gay Therapies. Variance in sexual partner desire and cross-dressing before the nineteenth century was read in relation to violation of social roles and marital ritual in European theory, rather than any specific "identity" (Foucault, 1980; Garber, 1992). By the end of the nineteenth century, both same sex desire and nonnormative gender expression was associated in a Freudian psychoanalytic frame with the psychological disorder of "inversion"—which combined early concepts of homosexuality and role confusion, or lesbianism and penis envy (Chauncey, 1989; Freud, 1905). While Freud proposed varying talking cures and other treatments to overcome what he understood as a pathological fear of the opposite sex caused by traumatic parent–child relationships, it is notable that he identified how many inverts did not want "treatment" or believe their inversion was curable, despite religious or family pressure to change (Freud, 1910). Inverts generally became associated in psychoanalysis and sexology with aberrant sexual desire emanating from severe cross-gender identification and were cast by conservatives and traditionalists as a sign of the "ills of modern life"—a weakening of males and coarsening of females, loss of separation of gender spheres and family structures, and degeneration of the species (Halberstam, 2012). During World War I, these anxieties were furthered as women took over "male" factory jobs and domestic tasks. In schools (particularly in the USA, Australia, and the UK), there developed alongside fears over the disruption of normative gender roles a parallel concern for the seduction of students by "deviant" teachers (Sears, 2005).

Inversion became understood as in fact containing separate conditions that could exist distinct from each other: homosexuality and transgenderism. In the 1950s, the widely influential American Psychological Association's *Diagnostic and Statistics Manual of Mental Disorders (DSM)*—listed homosexuality as a sociopathic personality disturbance (Sears, 2005), despite evidence from researchers like Kinsey that homosexuality was indeed a common and healthy occurrence (Kinsey, Pomeroy, & Martin, 1948). Similarly, as recently as in the first few years of the 2000s the *DSM IV* (now outdated) still labeled transgender people with a diagnoses of "Gender Identity Disorder (GID)" (Drescher & Byne, 2012), which described the misfit between their allocated sex and gender identity as a form of personal dysfunction within the "Paraphilias and Sexual Dysfunction" section of the book. Through the widespread dominance of these pathologizing conceptualizations many GLBT people—including students—have been subjected to harmful but ***ultimately useless*** treatments to change their identification ranging from shock therapies, institutionalized living, right through to more modern ex-gay therapies involving public shaming or invasive changes to their dress/mannerisms and lifestyles (APA Task Force on Appropriate Therapeutic Responses to Sexual Orientation, 2009).

Intersex Correctives. In the last century, a separate set of problems have been faced by intersex people at the hands of institutions. Intersex infants have widely been subjected to unnecessary and often irreversible "corrective surgery" forced upon them in Western countries before or at school age and have typically been made to physically and socially live out their

lives as males *or* females without their knowledge or consent, before they were old enough to understand and have a say in the matter (United Nations, 2012). These surgeries were the result of many years of institutionalized privileging of traditional male and female bodies in the medical system, doctors and surgeons mistakenly believing they were "helping" the infant by choosing their sex, and the parents of the infant being made to feel there is something "wrong" with their child such that their untreated bodily condition would be socially untenable.

Contemporary

Non-pathologizing Approach to Homosexuality

By the 1960s, an anti-psychiatry movement was forming due to the abuses experienced by GLBTIQ community members and other groups (such as women). Key researchers and gay liberation activists such as Frank Kameny worked to convince the APA that homosexuality was not only a common but healthy occurrence of same-sex attraction in humans and other animals, which did not in itself mar psychological health or happiness, nor constitute gender confusion (Spitzer, 1981). They pushed for this position using protests and negotiations with APA leadership to get invited to key meetings in the early 1970s about the DSM's future framing of their identities (Bayer, 1987). Issues around sexual orientation were reframed as problems of personal discomfort with stigma or social rejection and were then ultimately removed from the DSM altogether. At the start of the new millennium, the APA put together a taskforce to investigate ex-gay/conversion therapies and the claim that homosexuality could be overcome through individual effort, psychological treatment, or medications. The final report not only strongly denounced ex-gay therapies, but reframed the psychologist's role as one in support of gay, lesbian, and bisexual people expressing their identities in a fully experienced life (APA Task Force on Appropriate Therapeutic Responses to Sexual Orientation, 2009).

The Australian Psychological Society (APS) responded to this new thinking by the APA and to community advocacy efforts directly, through extensive consultation processes. In October 2000, it released its *Guidelines for psychological practice with lesbian, gay and bisexual clients* (APS, 2000); declaring the need for psychologists to understand that "homosexuality and bisexuality are not indicative of mental illness" (p.5). The APS further outlined its position that "social stigmatization (i.e., prejudice, discrimination, and violence) poses risks to the mental health and wellbeing of lesbian, gay, and bisexual clients" (p. 6); that LGB youth face particular risks (p. 11) and that psychologists must avoid use of methods and tests "that are biased against lesbian, gay, and bisexual people" with these clients (p. 13). The APS has steadily become far more affirming in advocacy for GLBTIQ rights—including supporting marriage rights for same-sex couples and diversity in family types in public Australian debates, for example (see http://www.psychology.org.au/community/public-interest/LGBTI/). The emphasis in school psychology has therefore strongly shifted away from any notion of "fixing" LGB students to fit heterosexual identities and towards the LGB-affirming approaches and notions of creating supportive environments now championed by the APS (2000).

Gender Dysphoria

Modern psychology is influenced by post-structuralist feminisms from the 1980s, and Queer theory popularized in the 1990s by Judith Butler, which were much more affirming of transgender and gender queer people (Butler, 1990, 2004; Califia, 1981). These frames instead attack essentialist notions of identity, and cast gender as culturally constructed. In these perspectives, a transgender person's gender identity is seen as no more a "performance" than anyone else's (Butler, 1990). Transgender studies and particularly the work of Stone (1991), also influenced modern psychology by affirming transgender peoples' right to self-definition and positive representation. There are also currently theories

of transgender identities based on brain sex which understand transgender people as having had brain areas develop chemically as a sex other than the one allocated to them at birth through hormonal exposure in the womb (Pease & Pease, 2003). During the last few years, there were heated international debates between academics and activists informed by various old and new perspectives.

Drescher recounted many gender diagnosis controversies during his tenure at the DSM-5 Workgroup on Sexual and Gender Identity Disorders and the ICD-11 Working Group on the Classification of Sexual Disorders and Sexual Health (Drescher & Byne, 2012). At the time, many activists pointed to how the previous removal of homosexuality from the manual had been a positive step against homophobia in the past and were of the opinion that retaining notions of transgender issues as a psychological problem was pathologizing. Others were concerned that—unlike gay, lesbian, and bisexual people—transgender people needed "a diagnosis" to facilitate their access to medical aids if they choose to pursue transition processes. Drescher explained that ultimately the decision was made to enable transgender people to maintain access to care through maintaining the construction of gender identity as a psychological/medical issue requiring diagnosis.

However, in the DSM-5 the diagnoses was changed from Gender Identity Disorder to **Gender Dysphoria**—a marked and verbalized difference between the individual adult or child's experienced gender and the gender others assign them, for at least 6 months, that causes clinically significant distress or impairment in social or other functioning. This diagnosis was no longer bundled with the Paraphilias and Sexual Dysfunction section but given its own chapter within the manual to reduce stigma. The addition of a post-transition specifier was to be used in the context of continuing treatment procedures that serve to support the new gender assignment (a kind of "exit clause" from the diagnosis, which reduces stigma, when the post-transition individual is no longer gender dysphoric but still requires access to ongoing hormone treatment).

Australian minors seeking bodily interventions (puberty blockers/surgeries) with or without parental support have historically been able to access these through the family court system by age 16 (rarer cases have been won for those as young as 11/12), but there have been recent calls within the court system to abandon this lengthy and stressful legal process (Bannerman, 2014). The emphasis on contemporary Australian school psychology for transgender students can therefore be both around supporting the individual to access experts in the field of Gender Dysphoria, to seek out an appropriate diagnosis as and if relevant, and working towards creating a network of support for the student which would ideally (but does not always) include some family members supportive of their process of self-discovery and a future that includes bodily autonomy (whether or not body affirmation or transition processes are pursued in an expression of that).

Intersex Body Autonomy

The UN now takes a clear position of protecting intersex infants against enforced medical correction (United Nations, 2012). It supports international and local intersex groups' push for their own bodily autonomy and their right to make decisions about their gender or any surgical intervention *only if they choose to* later in life. The International Intersex Organisation (OII) and British Psychological Society criticized inclusion of intersex people within the Gender Dysphoria concept in the DSM-V (Kermode, 2012) because unlike transgender people, intersex people who are unhappy with their bodies may be unhappy *due to* surgical interventions (imposed against their will in their infancy or youth) rather than due to a desire for surgery based on their own discomfort with their gender. However, some intersex people find the concept useful in gaining access to interventions, but the emphasis in psychology should now be on supporting bodily autonomy (including access to any or no intervention; as wanted; United Nations, 2012).

Antidiscrimination and Well-Being Reform

In 2011, the United Nations Educational, Scientific and Cultural Organisation (UNESCO) held the First International Consultation on GLBTIQ issues in Educational Institutions in Rio de Janeiro, Brazil (December 6–9th). The event was attended by government and nongovernment representatives and education research experts on the topic from all continents (including the first author), and they created the *Rio Statement* on the tenth International Human Rights Day (UNESCO, 2011). The statement asserted that the right to education must not be "curtailed by discrimination on the basis of sexual orientation or gender identity." During the same period, 200 UN Member States attended the New York convening "Stop Bullying—Ending Violence and Discrimination Based on Sexual Orientation and Gender Identity." The UN Secretary, General Ban Ki Moon, contended that bullying on these bases was "a grave violation to human rights and a public health crisis." This framing of human rights has subsequently been supported by the United Nations as a body, with the release of the United Nation's GLBTIQ-focused *Born Free and Equal* policy (United Nations, 2012). This document outlined the UN's position in interpreting GLBTIQ rights as inherent in "human rights" for the first time, and asserted the protection of all people against discrimination (including in schools) on the basis of sexual orientation, gender identity and intersex status in international human rights law. It pushed for legislative protections and violence prevention measures in all nations, and for schools to make active efforts towards inclusion to support GLBTIQ students' psychological well-being.

Overall, contemporary psychology perspectives show a significant shift in their treatment of GLBTIQ people. The standard focus for school psychologists therefore is now more about being supportive of clients to achieve their own (varying) personal goals within a broader context of social reform and affirmation, rather than forcing students into outmoded and exclusionary frames of traditional male or female roles and identities.

Research and Statistics

The key contemporary research data on GLBTIQ students in the primary and secondary years has shifted from stigmatizing perspectives, using a combination of psychological and sociological analyses to give an account of how internal and external factors impact the students' well-being.

Gay and Lesbian Students

The recent international literature on gay and lesbian students was mainly created by gay and lesbian education networks and (nongovernment, human rights-based) civil society organizations—USA's Gay Lesbian and Straight Education Network (GLSEN), China's Aibai, the UK's Stonewall, Ireland's BeLonG To and others (Jones, 2015; UNESCO, 2012). These organizations tend to focus on homophobic bullying and "school safety" for GLBTIQ students (Jones, 2015). GLSEN's 2010 report on 7261 gay, lesbian and bisexual student participants (aged 13–21 years) stated 61% felt unsafe at school because of their sexual orientation (Kosciw, Greytak, Diaz, & Bartkiewicz, 2010). Overall 85% reported that they were verbally harassed (e.g., called names or threatened) at school because of their sexual orientation, and 19% were physically assaulted (e.g., punched, kicked, injured with a weapon) because of their sexual orientation. These abuses were linked to poorer psychological well-being, including higher levels of depression and lower self-esteem. Hunt and Jensen (2009) conducted a similar survey in Great Britain (for Stonewall) exploring 1145 lesbian, gay and bisexual secondary students' school experiences. They found 65% of students experienced homophobic bullying in Britain's schools, while an overwhelming majority of 97% heard homophobic phrases at school. Only a quarter of schools explicitly taught students that "homophobia is wrong"; but at these schools same-sex attracted students were 60% more likely not to have been bullied, 70% more likely to feel safe, and twice as likely to feel that their school environment was supportive. Moreover, they were over twice as likely to feel able to "be themselves."

Along with these organizations, university-based researchers—whose work is subjected to far greater and required ongoing training, ethical supervision and peer-review—have also considered GLBTIQ students and school safety. An Australian study on 3134 GLBTIQ students aged 14–21, showed a steady increase in homophobic violence in Australian schools over the past decade (Hillier et al., 2010). The study uncovered links between state and school-level education policies and significantly decreased likelihoods of violence, suicide risk and self-harm for same-sex attracted youth broadly (detailed in Jones & Hillier, 2012). Specifically, 26 % of GLBTIQ students who were aware of policy-based protection against homophobia at their own school had self-harmed, compared to 39 % whose school had no policy. Also, 13 % of GLBTIQ students who were aware of policy-based protection against homophobia had attempted suicide, compared to 22 % whose school had no policy. Further, 75 % of GLBTIQ students who were aware of policy-based protection against homophobia at school felt safe there (compared to 46 % who said their school had no policy), reflecting further data on the significantly reduced homophobic abuse in schools with policy protection—data which school psychologists are in a good position to bring the attention of school management and staff. Family support also provided further protection against negative well-being outcomes, which school psychologists can work to enhance in family sessions (but only with the student's consent). Thus, there have been clear links made between gay and lesbian students' well-being and the school environment, curricula and policies, and social support.

Bisexual Students

There is a new push for separate attention to bisexual students as an emerging, unique group with specific needs at school (Hepp, Kraemer, Schnyder, Miller, & Delsignore, 2005; Saewyc et al., 2009). Entrup and Firestein (2007) describe newer groups of bisexual students as part of a generation more broadly reluctant to label sexual orientation identity, more comfortable with fluidity and prone to experimentation. Girls have been identified as having higher sexual fluidity than boys—both in terms of mixed sex/bisexual attractions and changed attractions over time (Diamond, 2008; Jones & Hillier, 2014). Bisexual youth—particularly bisexual girls—have been identified in comparative studies against girls attracted to a single sex as being at higher risk of victimization, depression, diminished social connection to family and school, drug use, and suicidality (Diamond, 2008; Saewyc et al., 2009). Bisexual girls have also been highlighted for their flexibility and inclusivity in dealing with negative reactions to their identities by educating others on diversity (Crowley, 2010), traits which could be employed to help build their resilience. An Australian study revealed that bisexual students were rarely directly mentioned in education policies or interventions against homophobia at the state or school level compared to gay and lesbian students, which contrasted with the strong desire of bisexual students to have their identities reflected in school-based discussions and policies (Jones, 2015; Jones & Hillier, 2014).

Transgender Students

Most international research on gender diverse and transgender young people is primarily focused on medical and psychological interventions, risk determinants, negative pathways, suffering and social victimization (Carrera, DePalma, & Lameiras, 2012; Donatone & Rachlin, 2013; Menvielle, 2012). This focus can reinforce negative stereotypes of transgender people as living risky lives. The research also mainly focuses on adults due to difficulties in access to transgender youth (Couch et al., 2007; Jones, del Pozo de Bolger, Dunne, Lykins, & Hawkes, 2015; Jones, Gray, & Harris, 2014; Pitts, Couch, Mulcare, Croy, & Mitchell, 2009). A recent UK study explored the process of transitioning (social or medical) and how this impacts mental health (McNeil, Bailey, Ellis, Morton, & Regan, 2012). Using 889 participants across England, Scotland, Wales, and Ireland aged over

18 years, their findings demonstrated that 90 % of participants had been told that transgender people were not normal and 84 % had thought of suicide, with at least 35 % attempting it. Yet once someone had medically transitioned, there were significant increases in social and mental satisfaction; findings echoed in Australian research (Jones et al., 2015; Smith et al., 2014).

A recent study in the USA examined transgender young peoples' experience of school harassment, school strategies designed to stop harassment, and the protective role of supportive school personnel (McGuire, Anderson, Toomey, & Russell, 2010). The researchers found that transgender young people were being saddled with anti-homophobia strategies designed for lesbian, gay, and bisexual young people, which had little or nothing to do with their needs. Yet when school staff and teachers took measures to decrease or stop transphobic harassment and discrimination, transgender students were more likely to feel safe and supported, which increased levels of trust between the school and student—showing the importance of intervention by school psychologists in terms of both student and teacher training. Unfortunately, this was a rare occurrence and over 80 % of transgender participants in the survey reported they were frequently the targets of negative comments and harassment. Comparing 91 transgender students to over 3000 same-sex attracted students (aged 14–21) (Hillier et al., 2010; Jones & Hillier, 2013), Australian research uncovered that transgender students were significantly more likely to have known their diverse identity earlier; disclosed this identity to people in their social or service networks; been rejected by family; and suffered physical discriminatory abuse by peers. They were also significantly more likely to self-harm and attempt suicide. However, the transgender students were twice as likely to seek help and engage in activism (than cisgender/non-transgender same-sex attracted peers) and often displayed a sense of pride in their gender identity in the face of discrimination and adversity.

Another Australian study looked more precisely at the value of engaging in activism for this group (Smith et al., 2014), using 15 interviews and a survey of 189 transgender and gender diverse students aged 14–25. Over 66 % had seen a mental health professional in the last year, and those with supportive parents had greater access to this assistance (which 60 % of those who had accessed it found useful). A range of activities helped them feel better about themselves including listening to music (90 %), talking to friends and peers (77 %) and engaging in activism (62 %)—whether the latter involved something as private as liking an activist Facebook page or as public as giving a speech. Regardless of the outcome of their activism (in impacting their rights), engaging in it had positive impacts on increasing their well-being and social connectivity. Another factor that improved well-being for the majority of participants was engaging in gender affirmation or transition, whether socially (through their dress, role, treatment, and others' use of their preferred pronouns) or medically (through use of puberty blockers, hormonal or surgical programs). However, it is worth noting that not all transgender students want to transition in a traditional way; some are happy to simply affirm their identity socially or to themselves. A final key finding was that 61 % of transgender students had sexual orientations not defined by gender such as pansexual, queer, and other terms—these students displayed complex thinking that challenged the models of bipolarized gender on which sexual identities are commonly constructed. The studies emphasized the need for specific school interventions for transgender students involving the individuals in determining the support they required (such as developing management plans around their access to gender experts, their desired uniform and way of being addressed).

Intersex Students

Natural intersex bodies are mostly healthy, and it is only in a few rare diagnoses that immediate medical attention is needed from birth. For this reason, most surgeries an intersex person was subjected to during their infancy have stemmed from medical professionals trying to appease parental stress or reduce the stigma the child

might face (United Nations, 2012). This is insufficient reason for such invasive intervention and can cause long-term problems for intersex people. Some intersex people may experience Gender Dysphoria over the disruption to their natural identity caused by enforced surgeries, or feel the interventions limited or obscured their identity or experiences (OII Australia, 2012). It is important for school psychologists to support intersex people to, like anyone else, have autonomy over any changes made to their bodies, and to understand their right to body acceptance and enjoyment. Therapy can provide a space for the intersex student to come to accept any physical differences they may have, work through confusion about their gender identity (if any is apparent), or issues related to any enforced surgeries if relevant.

There may be a need for family counselling which the school psychologist may be able to support themselves or offer referrals for, particularly if there has been disagreement about the child's preferences or expressions of self. It is important to support parents to understand that their child must take charge over any decision-making processes about their bodies and identities; parents do not have a "right" of interference. This can be easier to understand if the psychologist can provide the right resources and connections to intersex communities. Intersex students may wish to maintain their privacy about their bodies and/or identities during their schooling, and it is essential to ensure this during and after any therapy. For some students, their condition may be more obvious and they may need structural support around issues of privacy and discrimination.

Role of the School Psychologist

One of the primary functions of the school psychologist is the promotion, development, and support of wellness (National Association of School Psychologists, 2006). Student social skill competencies and mental health are enhanced through the delivery of school-based services with the goal of improving outcomes for all students, including those who are GLBTIQ. By working directly with students, families, and educators, school psychologists create safe learning environments that foster healthy development (Lasser & Tharinger, 2003). Those GLBTIQ students who are experiencing difficulties may need the assistance of school psychologists to address-specific concerns (e.g., isolation, harassment, identity development).

One way of conceptualizing school psychologists' role in delivering such services is by addressing needs in ***a tiered approach (e.g., universal, targeted, and intensive)*** especially recommended for GLBTIQ students (Alvarez, Iranipour, Trolli, & Weston, 2013; National Association of School Psychologists, 2006). Thus, efforts to create safe and accepting school environments for all students function as primary prevention approaches at the universal level and are directed at school systems, policies, and personnel and may promote a school culture and philosophy that is accepting and supportive of GLBTIQ students. By cultivating a climate that does not tolerate discrimination (through encouraging the school's own adoption of antidiscrimination policies, education efforts, and events), school psychologists may make some positive strides towards the prevention of negative outcomes for GLBTIQ students. Even so, some students may still demonstrate a need for psychological services. In such cases, group counselling (whether GLBTIQ-specific groups or dealing with friendship groups, for example) and/or family-school collaboration may be appropriate avenues for intervention at the targeted level. Should a student need more individualized supports, such as one-on-one counselling services, then services may be provided at the intensive level. This tiered approach emphasizes prevention and ensures that services are provided at the appropriate level of intensity to match the observed needs (Alvarez et al., 2013).

Tier I

Prior to developing universal-level (Tier I) supports, school psychologists may begin with an assessment of a school's climate for GLBTIQ

students (Lasser & Tharinger, 2003). A climate assessment involves the collection of data, both qualitative and quantitative, to determine the degree to which the school environment promotes and/or inhibits the positive development of GLBTIQ students. Such an assessment may provide valuable information about students and staff attitudes towards GLBTIQ youth, levels of acceptance, recent history of harassment, and current support systems in place. This climate assessment will provide school psychologists with a baseline and help identify areas that need improvement. For example, assessment data may indicate that school events and policies are generally heterocentric (i.e., assuming that all students are heterosexual), an observation that can lead to changes at the universal level by implementing more inclusive language and practices.

School psychologists fostering a positive climate for GLBTIQ students have many resources at their disposal, many of which are included at the end of this chapter. The Gay, Lesbian, & Straight Education Network (GLSEN) provides online "toolkits" and webinars (http://glsen.org/educate/professional-development), and the National Association of School Psychologists (NASP) in the USA maintains a substantial list of articles, PowerPoint presentations, position statements and policies, and other materials, many of which are available online (http://www.naspon-line.org/advocacy/glbresources.aspx). School psychologists may also sponsor and/or support a "gay straight alliance" to promote inclusion (http://www.gsanetwork.org). Utilizing the information found on these sites, school psychologists may develop presentations and trainings for parents, teachers, administrators, and students, all with the goal of cultivating positive and safe learning environments for GLBTIQ students. Other school psychologist roles at Tier I include promoting the use of inclusive language and activities, implementing programs to prevent bullying and harassment of GLBTIQ students, and designating student resource offices as "safe spaces" for GLBTIQ students (Alvarez et al., 2013; Fisher, 2014).

Tier II

At the targeted level (Tier II), the role of the school psychologist serving GLBTIQ youth turns from prevention to intervention, assisting students and their families with supports that facilitate positive and healthy adjustments and transitions. School psychologists recognize that services provided at Tier I will not meet the needs of all students and develop targeted interventions to support those with mild to moderate needs through Tier II activities such as group counselling, psychoeducational interventions, and collaborative problem solving. School psychologists may need to establish and articulate clear criteria to differentiate those students whose needs are met with Tier I supports from those who have needs that will be addressed by Tier II interventions. The focus at this level may be the promotion of well-being through support groups (Goodenow, Szalacha, & Westheimer, 2006), consultation with parents and teachers (Jeltova & Fish, 2005), family-school partnering activity (Lines, Miller, & Arthur-Stanley, 2011), and the bridging of community and school resources.

Tier III

Tier III services are reserved for those students who continue to need support after Tier II interventions have been tried with the aim of "reducing the intensity, severity, and complications relating to the presenting problem by using highly individualized and specialized interventions" (Alvarez et al., 2013, p. 26). The role of the school psychologist at this level is to provide services and supports that are tailored to the unique presenting challenges of the student in need. Fisher (2014) notes that at Tier III, the school psychologist may provide individual counselling to address concerns related to a student's GLBTIQ status, or perhaps other issues that may be impacted by one's GLBTIQ status, but should not assume that a student's GLBTIQ status is central to the counselling referral. When working individually with students, the school psycholo-

gist's role should be affirmative supportive of sexual minority youth. When appropriate, the school psychologist will often address the need to support healthy identity development and coming out, or visibility management (Lasser & Tharinger, 2003). Moreover, school psychologists are sensitive to the well-documented risk of suicide for GLBTIQ youth and should work to reduce risk through prevention and intervention.

Diverse Australian School Contexts and Policies

Australia-wide it is illegal to discriminate against GLBTIQ students in schools. New South Wales, Victoria, Tasmania, and South Australia have specific education policy guidelines banning homophobia and supporting education access for GLBTIQ students, and further provisions are now being pushed for in Queensland and Western Australia (Jones et al., 2014). However, there are some exemptions for religious schools at both the national and state level that may make these contexts more problematic for students wishing to express GLBT identities (no exemptions exist regarding the education access of intersex students, whose identities are regarded as primarily biological by religious bodies; Gahan & Jones, 2013). School psychologists can potentially play a major role in educating both parents and staff in very conservative environments about GLBTIQ students' need for safety even where active support is being withheld; but there may be a need to work with external supports (such as the Australian Safe Schools Coalition) in navigating such environments in the most extreme cases. Due to the reinstatement of the National School Chaplaincy Program in Australian public schools with only religious chaplain providers in place, chaplain input on "gender issues" and student sexuality—where clarity over the confines of their roles is unclear—is possible even in otherwise secular schools; 40 % of chaplains deal with issues of student sexuality (Thielking & Stokes, 2010). While some religious school staff and chaplains are incredibly supportive, others have been linked to the promotion of homo-negative religious discourses and negative well-being outcomes for GLBTIQ students (Jones & Hillier, 2014).

Cultural Issues

Some GLBTIQ students' school and family environments are further complicated by the intersections of different cultural perspectives. Some cultures don't comprehend GLBTIQ identities or may see these identities as deviant, while others may acknowledge them in different forms to mainstream Australian understandings (Samoan notions of fa'fafine, males who perform the role of females for daughterless families, are an example of culturally specific gender diversity). It can be useful for school psychologists to familiarize themselves with the various perspectives in operation, and how these may best speak to each other, through consulting with local experts or online guides. Some Aboriginal and Torres Strait Islander groups may recognize Sistergirl and Brotherboy transgender identities or same-sex relations, for example, others are less supportive (these family groups are by no means uniform and have greatly varying perspectives). It is essential to foreground a student's confidentiality and privacy where GLBTIQ status may compromise cultural/familial acceptance, and where possible, to seek out community-led GLBTIQ resources or groups (such as Sisters and Brothers NT).

Case Study

Joshua is a 15-year-old student who has been referred to Cassie Smith, the school psychologist, by his teachers due to a number of concerns. Prior to this school year, he had not experienced any significant difficulties and had, in many ways, been a model student. Well-liked by his peers and academically successful, Joshua excelled in math and science classes and played on the school's football team. However, Joshua's parents and teachers have noticed marked changes over the past few months and are concerned about his well-being.

Beginning in October, Joshua began to complain that he was not feeling well and stayed

home from school. A visit to the doctor did not confirm any medical problems. In November, he quit the football team and became withdrawn, spending increasingly more time alone in his room. His grades began to suffer and teachers noted that he was frequently absent from class. When he was in class, he seemed inattentive, distracted, and depressed.

Following the referral for school-based psychological services made by the teacher, Joshua's parents were contacted. They were provided information about counselling services and gave their informed consent for Joshua to see the school psychologist. At his initial consultation, Joshua appeared withdrawn and perhaps mistrustful. Ms. Smith explained that she was there to provide him with a safe and comfortable place to talk about his concerns, and assurances of privacy and confidentiality were discussed. Joshua listened and verbalized minimally at this first meeting, but agreed to return for another appointment the following week.

Over the next few sessions, Ms. Smith built greater rapport with Joshua and observed increased comfort and participation in the counselling. Sensing the timing was right, the school psychologist asked what might be the origin of the sudden declines in attendance, grades, and football playing. Initially hesitant in responding, Joshua explained that he was scared to go to school but did not elaborate. The school psychologist acknowledged his feelings and explained that it was part of her job to make sure that school is safe and comfortable for all students. Joshua then asked, "what about students who are gay?" Without asking Joshua for any additional information, Ms. Smith affirmed, "yes, my job is to make school safe and comfortable for students who are gay. In fact, I have helped several at this school and at other schools."

At the next session, Ms. Smith mentioned to Joshua that he had asked about students who are gay the previous week. Joshua then asked for reassurances regarding confidentiality and privacy, and Ms. Smith reiterated her commitments. Joshua then disclosed that he had never before told anyone that he's gay, but that he had known this to be true for several years. Ms. Smith thanked him for sharing this information and asked him how he felt to disclose for the first time. Joshua reported mixed feelings that included relief, anxiety, and uncertainty. Ms. Smith normalized his feelings, and also assured him that she was supportive and could help him with any concerns that he had. After the session, she noted that his coming out marked a turning point in the counselling relationship.

Over the next few sessions, Joshua explained a series of events that contributed to his current difficulties. He reported that one day he had noticed that his phone was missing and went to the locker room to find it. When he arrived he noticed that other members of the football team were looking at his phone and discovered that he had visited web sites for gay men. When he asked for his phone, the other students assaulted him verbally and physically. Since that incident, he has felt ashamed and fearful. Ms. Smith provided Joshua her unconditional support, emphasized the inappropriateness of the other students' behaviors, and emphasized her commitment to helping Joshua. Though still anxious and fearful, Joshua reported that he felt less shame and was happy to have Ms. Smith's assistance.

Between sessions, Ms. Smith considered ways to assist all GLBTIQ students at her school. She knew that Joshua wasn't the only sexual minority student and that the school-wide climate needed to improve to end the kind of bullying and victimization that Joshua experienced. She was also aware that she would need administrative support to address these concerns, so she scheduled a meeting with the school's principal. At this meeting, she planned to propose a review of the school's policies related to nondiscrimination, bullying, and equal treatment (while balancing Joshua's concern for privacy by not singling him out specifically when explaining the need for the review).

Over the next few counselling sessions, Ms. Smith and Joshua discussed GLBTIQ identity development, coming out issues, and visibility management. As Joshua gained more trust and confidence, he became receptive to the idea of joining a GLBTIQ support group facilitated by Ms. Smith. The support group had been devel-

oped with great sensitivity to students' needs for privacy and confidentiality, with consideration given to time, location, and promotion to minimize participants' anxiety over the possibility of inadvertent outing and bullying. Though Joshua was not comfortable coming out to his family, he was interested in discussing this with Ms. Smith.

Questions for the Reader

1. In what ways do you think Ms. Smith was most helpful to Joshua?
2. If you were in Ms. Smith's role, what would you have done differently?
3. Suppose Ms. Smith had no prior training or experience in working with GLBTIQ students. How would she best serve Joshua?
4. If Ms. Smith's principal were not supportive of her efforts to improve the climate for GLBTIQ students, how could she respond?

Ethics and Training

The International School Psychology Association (ISPA) states in its code of ethics that school psychologists acknowledge differences "associated with age, gender, gender identity, race, ethnicity, culture, national origin, religion, sexual orientation, disability, language, or socioeconomic status" (2011, p. 2). Moreover, ISPA states that school psychologists "do not engage in discriminatory procedures or practices based on" the categories listed above (p. 2). With such a strong ethical imperative to acknowledge, support, and promote fairness for GLBTIQ individuals, it follows that school psychologists have an obligation to provide training that addresses professional relationships, responsibilities, competencies, and practices (Bahr, Brish, & Croteau, 2000). However, graduate training in school psychology often falls short (Hillier et al., 2010). This may be addressed by integrating content in graduate coursework and by working to provide graduate students with field-based experiences (e.g., practicum internship) working with GLBTIQ individuals. Failure to do so may be damaging, wrongly suggesting these issues are marginal to school psychology or are too controversial to address.

Graduate programs that prepare future school psychologists should develop and publish clear affirming policies that advocate for nondiscrimination and promote justice and fairness for all. The Australian Psychology Accreditation Council (APAC) requires all university psychology programs to teach professional ethics, and all registered psychologists are legally bound by the *Code of Ethics* (APS, 2007)—including any appended guidelines (e.g., APS, 2000)—under the Australian Health Practitioners Regulation Authority (AHPRA). The APS (2000) highlights specific ethical issues for psychologists to strive to be especially vigilant around issues of confidentiality and privacy for these clients (p. 14), to be aware of community impacts on the therapeutic process and to understand these clients deal with special social circumstances (p. 15). School psychologists need to understand that if they behave unethically in their professional conduct towards GLBTIQ clients—including in terms of discriminatory practice—they can be reprimanded or deregistered by AHPRA.

For this reason rather than segregating GLBTIQ issues to a course or two, faculty should integrate GLBTIQ content across courses as appropriate, including in counselling, consultation, and assessment classes. Faculty may also collaborate with field-based practicum sites to ensure that graduate students have opportunities for supervised practice in this area. Practicing school psychologists may offer trainings to parents, teachers, and administrators to facilitate the development of safe and affirming school environments for GLBTIQ students. Such trainings communicate to the school community that though often invisible, GLBTIQ students exist and have a fundamental right to thrive like all other students. Workshops for staff allow opportunities to correct misinformation and answer questions about GLBTIQ students. An educated school community is more likely to be supportive and can potentially serve as a protective factor for students at risk.

School psychologists can contribute to their own personal and professional development by

exploring their personal values and ideas around working with GLBTIQ students. Reflections on how your own sexual identity influences how you respond to student–clients presenting with such issues, how confident you are in providing a Tier 1 approach and actively standing up in an organization to effect change in this area are important. What would stop you, and how would you ensure that you personally are supported and empowered if faced with organizational barriers? You may look into opportunities for peer supervision or a toolkit of evidence over time to understand your development needs.

Conclusion

The histories, data, and case information presented in this chapter have offered insight into many approaches to psychology for GLBTIQ students—ranging from those well past their use-by date, through to those illustrating innovative world standard techniques. The shifts in thinking about the psychology behind GLBTIQ identities, even quite recently, offer dramatic and exciting potential to develop your work in school psychology. It is likely the future will bring further change as researchers begin to study best practice approaches in schools based on these new theoretical frames. However, given what we currently know, this chapter has emphasized the value of an awareness of social justice struggles, structural supports in schools, and a multifaceted approach to supporting GLBTIQ students.

Summary of Key Points

- Some GLBTIQ people are wary of psychologists due to historic mistreatment.
- GLBTIQ students (and those with GLBTIQ relatives/friends) benefit greatly from direct school-level policy protection against discrimination in schools.
- Dealing with prejudice involves the whole school, not just the individual experiencing discrimination. A tiered approach can be most appropriate.
- Transgender and intersex students need to be directly consulted and involved in any specific plans for management of their school experience.

Future Directions and Resources

Australia-wide and state-specific bodies can be consulted for further information, guides, posters, training, and other resources:

- **Australia-wide**: Gay and Lesbian Issues and Psychology (GLIP, an APS members group), Parents and Friends of Lesbians and Gays, The Safe Schools Coalition Australia, and Organisation Intersex International (Australia-wide)
- **State-specific**: Proud Schools (NSW), Safe Schools Coalition Victoria and Ygender (VIC), The Freedom Centre and The Equal Opportunity Commission (WA), Open Doors (QLD), ShineSA (SA), Bit Bent (ACT), Headspace and QLife (NT), Sisters and Brothers (NT), and Working it Out (TAS).

Test Yourself Quiz

1. Define “intersex.”
2. How does “Gender Dysphoria” differ from “Gender Identity Disorder?”
3. List some ways in which school psychologists can support GLBTIQ students’ well-being.
4. What is a “tiered approach” to school psychology?
5. Which GLBTIQ support bodies can you contact for your location?

Glossary

Heteronormativity Producing or reinforcing heterosexuality as a “naturalized” and normative structure.

Homophobia An individual's or society's misunderstanding, fear, ignorance of, or prejudice against gay, lesbian, and/or bisexual people.

Intersex Having physical, hormonal or genetic features that are neither wholly female nor wholly male; or a combination of female and male.

Gender Dysphoria A medical diagnosis related to transgender people in the DSM-V, referring to extreme discontent with the sex allocated to an individual at birth.

Gender Identity Disorder/GID A medical diagnosis for transgender people used in the DSM-IV and since replaced with the less stigmatizing gender dysphoria.

Lesbian Women whose sexual and romantic feelings are primarily for other women and who identify with those feelings.

Pansexual or Omnisexual People whose sexual and romantic feelings are for all genders; this rejects the gender binary of male/female and asserts that there are more than two genders or gender identities. Inclusive terms considering the gender diverse.

Puberty Blockers Non-testosterone-based hormone treatment (GnRH agonists) used to suspend the advance of sex steroid induced and thus block pubertal changes (and secondary sex characteristics) from occurring/developing further for a period of time.

Queer Queer is an umbrella term used to refer to the LGBT community, and also inconsistent gender or sexual identities.

Sex A complex relationship of genetic, hormonal, morphological, biochemical, and anatomical differences that impact body and brain. Some people are intersexed and do not fit easily into a dimorphic division of two sexes that are 'opposite'.

Sexual Orientation The direction of one's sexual and romantic attractions and interests towards members of the same, opposite or both sexes, or all genders.

Transphobia An individual's or society's misunderstanding, fear, ignorance of, or prejudice against transgender people.

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School Psychological Practice with Deaf and Hard-of-Hearing Students

Fiona Bell and Lindsay Nicolai

Hearing impairments affect a person's ability to communicate and acquire information from their environment and may include difficulty in understanding conversational speech and hearing different types of sounds. Hearing difficulties also have a profound effect on the educational, social and emotional well-being of students (Stevenson, Kreppner, Pimperton, Worsfold, & Kennedy, 2015). Therefore, educators and school psychologists should be aware of issues related to hearing loss in children, such as the warning signs of deafness, so as to generate appropriate interventions or to make a referral for a hearing test.

Australian Hearing is a statutory authority constituted under the Australian Hearing Services Act 1991 and is the largest provider of government-funded hearing services. It estimates that between 9 and 12 children per 10,000 are born in Australia with a significant hearing loss and approximately 23 children per 10,000 will require hearing aids by the age of 17 (see http://www.hearing.com.au). Hearing loss presents unique challenges for learning and social development in children. Therefore, it is crucial for school psychologists to familiarise themselves with the types, causes and impact of hearing loss and the ways these can affect a student's ability to develop and learn within the school environment. Significant underachievement has been documented for deaf and hard-of-hearing children as compared to hearing children (Kyle & Harris, 2006; Panter & Bracken, 2009). For example, these students have been shown to struggle with early vocabulary development, often leading to deficits in reading (Beck & McKeown, 2007; Hillier, 2012; Williams, 2012). However, the age of onset of deafness has an impact, with the later the onset, the better deaf children are able to read, which is associated with language development (Geers, 2003). Early intervention has significant positive effects for these children—the earlier, the better. The sooner children are identified and supported, the better their language development (Moeller, 2000). This chapter covers the types, causes and impact of hearing loss, describes medical interventions and outlines approaches that support hearing-impaired children in schools, including the implications for school psychologists when assessing students with hearing difficulties. Identification and assessment of hearing loss is the first essential step to understanding a child's difficulties in school.

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Hearing Assessments and Levels of Hearing Loss

Hearing test results are shown on charts called audiograms with the loudness in decibels on one axis and the frequency of sound waves on the other axis (NIDCD, n.d.) The World Health Organization (2015) defines disabling hearing loss as 'hearing loss greater than 40 decibels (dB) in the better hearing ear in adults and a hearing loss greater than 30 dB in the better hearing ear in children' (WHO, paragraph 1). On the audiogram, the cluster of speech sounds is represented by a banana-shaped region known literally as the 'speech banana'. Each audiogram reflects the individual's hearing proficiency, with the exception of the letters q, w, x and y, along with most letter combinations (e.g. ch, sh, th) that fall into the speech banana range.

The audiogram below shows the natural and human-produced sounds outside the 'banana' that people can hear, such as the rustle of leaves or bird sounds (natural) or the human-made sounds of music or mechanical noises. The degree of hearing loss may vary across the different frequencies and may be mild, moderate, severe or profound or a combination of these at different frequencies.

A hearing loss of 40 dB or more across the frequencies, which constitutes a moderate or greater hearing loss, will greatly reduce the person's ability to access speech sounds and can have a significant effect on language development (Hillier, 2012). If a loss slopes from mild to severe in the higher frequencies, the person unaided cannot hear the 'f', 's' and 'th' sounds and their ability to say these sounds clearly may be impaired (Fig. 1).

Hearing losses in the moderate to profound range in both ears will probably lead to the audiologist prescribing listening assistive devices, usually hearing aids. Children with a mild hearing loss of 25–40 dB may also have hearing aids prescribed.

Types of Hearing Loss

Hearing loss can be either 'congenital' or 'acquired'. Congenital refers to individuals who were born with a hearing loss, while acquired hearing loss refers to individuals who develop hearing loss post-birth. It is important to note that 'acquired' can also be demarcated as pre- or post-lingual (Access Economics, 2006). Therefore, it is vital that the school psychologist understand the early history of the hearing-impaired student. There are several issues pertaining to the identification and assessment of deaf and hard-of-hearing children. Children who suffer from milder hearing loss or who have auditory processing difficulties are not always easily identified. In these cases, the school psychologist may be the first to question whether a student's reduced concentration, difficulties with socialisation or learning deficits may be due to an inability to hear and would likely be the person to make the initial referral to an audiologist for a hearing assessment. Deafness can be also be bilateral (i.e. both ears are affected) or unilateral (i.e. only one ear is affected). There are two main types of deafness, sensorineural hearing loss and conductive hearing loss, and these can occur separately or together (Smith, Shearer, Hildebrand, & Van Camp, 1999).

Sensorineural hearing loss is caused by a malfunction of or damage to the cochlea, the central processing centre of the brain or the hearing nerves and results in a loss of volume and clarity of sounds (Alexander & Harris, 2013). This type of hearing loss can be the result of being born with a particular genetic condition, or it can also be caused by exposure to excessive noise, illness (i.e. meningitis) or certain drug treatments such as chemotherapy. Sensorineural hearing losses may be stable or may deteriorate to a more severe level over time. Frequent hearing testing is recommended to monitor hearing levels. Children with sensorineural hearing loss are generally given behind-the-ear hearing aids, which are connected by a narrow tube to a mould in the ear (Australian Hearing, n.d.). Severe to profound hearing losses may be treated with a cochlear implant, which is a device implanted in the head and near the ear to assist in hearing and will be discussed in greater detail later in the chapter.

Conductive hearing loss can be permanent or temporary. Conditions, such as Treacher Collins syndrome or Goldenhar syndrome, where the ear canals are very small or absent, constitute a

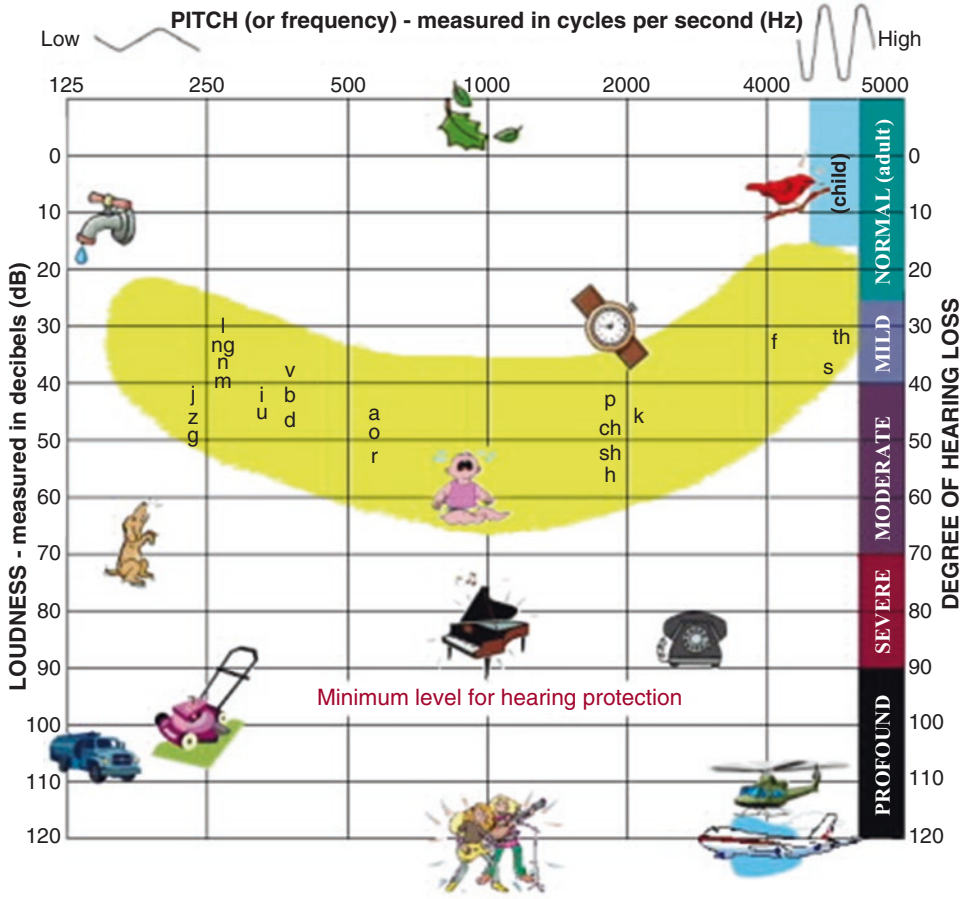

Fig. 1 AUDIOGRAM Reproduced with permission from First Years (http://www.firstyears.org/lib/banana.htm)

permanent conductive loss (Tharpe & Gustafson, 2015). Temporary hearing loss can result from infection or fluid in the middle ear, wax blockage or foreign objects. Indigenous children, especially those in remote communities, commonly suffer a hearing loss due to persistent middle ear infections (AIHW, 2015).

Conductive losses can be treated with either a 'bone conductor' hearing aid, which requires the child to wear a headband, or a bone conduction implant. This is a device that is surgically implanted in the bone behind the ear with another device attached to the head with a press stud protruding from the skin or a magnet if the device is under the skin (Briggs et al., 2015).

Auditory neuropathy is a relatively rare hearing disorder, which affects the transmission of the sound signal from the inner ear to the brain. This results in intermittent and fluctuating quality and quantity of auditory input (National Institute of Deafness and Other Communication Disorders, 2001).

Causes of Deafness

External factors. Exposure to extremely loud sounds or excessive noise can also damage hearing. For example, adolescents and young adults can damage their hearing from listening to loud music, which is a major cause of later-onset hearing nerve deafness (Australian Hearing). Maternal illnesses or toxins during pregnancy can also cause deafness, such as maternal rubella, cytomegalovirus (CMV), herpes simplex virus (HSV), toxoplasmosis, Rh factor complications

or excess alcohol and drug use. Other conditions such as meningitis, jaundice, infections, brain bleeds or extreme prematurity may also lead to deafness (Smith et al., 2014).

Genetic factors. Deafness that is caused by genetic factors can be 'familial', where more than one child in a family is affected, or 'sporadic', where only one child in the family is affected (Centers for Disease Control and Prevention, n.d.). More than half of pre-lingual deafness is genetic in origin, and usually nonsyndromic and autosomal recessive (Erbe, Harris, Runge-Samuelson, Flanary, & Wackym, 2004; Smith & Van Camp, 2014) such as connexin 26 mutations, which are responsible for at least 20% of all genetically transmitted hearing loss (Smith et al., 2014).

Syndromes

A small percentage of pre-lingual deafness is related to a syndrome, and children in this category may have other additional medical needs.

Pendred syndrome is the most common form of syndromic hearing loss (Coyle et al., 1996). It causes severe to profound sensorineural hearing loss. The children have enlarged vestibular aqueducts (EVA), which generally lead to progressive loss of hearing. Physical knocks to the head and sudden changes of air pressure can cause sudden further loss of hearing. Children with EVA are advised against participation in contact sports (Smith, R., Shearer, A., Hildebrand, M., & Van Camp, G. et al., 2014). They may also develop goitre, a thyroid problem that develops in puberty or adulthood, and may have balance issues due to vestibular issues (Kochhar, Hildebrand, & Smith, 2007).

Usher syndrome is a condition that leads to deafness and blindness. Usher syndrome type 1 is the most severe, and children with this condition are profoundly deaf at birth; have poor motor coordination, due to vestibular issues; and then develop vision impairment during childhood or adolescence (Kochhar et al., 2007).

Long QT syndrome is a genetically transmitted heart rhythm issue that can cause sudden death if not treated (Crotti, Celano, Dagradi, & Schwartz, 2008). It can be associated with one type of rare genetic deafness called Jervell-Lange-Nielsen syndrome. A deaf child with a history of unexplained fainting or family history of sudden death needs investigation for long QT syndrome.

Treacher Collins, *Crouzon*, *Goldenhar and Stickler syndromes* cause a permanent conductive hearing loss and may also involve significant craniofacial abnormalities or other health issues Tewfik & Khaled, 2015).

Social and Emotional Impact of Communication Difficulties

With estimates that there are 20,000 children and adolescents in Australia with some form of hearing impairment (Hogan, Shipley, Strazdins, Purcell, & Baker, 2011) and over 80% of children with a hearing impairment attending mainstream schools (Power & Hyde, 2002), it would be important for a school psychologist to be mindful of the potential impact of a child's hearing loss on their development in school. According to Knoors and Marschark (2014), children who have communication difficulties are at a higher risk of social isolation if peers view their difficulty understanding language or the way they produce speech as abnormal. Additionally, hearing-impaired students often do not join into group settings due to competing sounds, which makes comprehension of language challenging during group conversation. The communication and social challenges that arise from an inability to hear may have a decisive adverse effect on children's mental health (Fellinger, Holzinger, Beitel, Laucht, & Goldberg, 2009; Stevenson et al., 2015). Problems with peer relationships have been shown to correlate with the amount of language used in conversation with peers at school (Fellinger et al., 2009), and children with a hearing loss are clearly at a disadvantage when trying to communicate with hearing peers. Therefore, it is important for school psychologists to incorporate social language training when counselling deaf and hard-of-hearing students in order to enhance their ability to participate in peer environments (Fellinger et al., 2009).

Role playing and modelling may be particularly useful to help enhance the use of social language. Certain risk factors, such as low self-esteem and chronic stressors associated with being deaf, have also been found to contribute to higher rates of psychopathology in deaf adolescents (Van Gent, Goedhart, Hindley, & Treffers, 2007; Van Gent, Goedhart, & Treffers, 2011). School psychologists can address these stressors by utilising relaxation techniques, teaching positive self-talk and encouraging proper nutrition and exercise with deaf students. It may also be the school psychologist's role to make the appropriate referrals for psychopharmacological consultation and other therapeutic supports. Some research indicates that deaf youths show greater rates of psychiatric diagnoses, such as attention deficit hyperactivity disorder (ADHD) and conduct and bipolar disorders, and they tend to spend longer in treatment than their hearing counterparts (Landsberger, Diaz, Spring, Sheward, & Sculley, 2014). Additionally, deaf and hard-of-hearing children have been found to be twice as vulnerable to emotional abuse and neglect than their hearing peers (Sullivan & Knutson, 2000), and physical abuse is also more prevalent in this population (Sullivan, Vernon, & Scanlan, 1987). As mandated reporters, school psychologists should be aware of the issues affecting the deaf student population so that prompt and accurate referrals can be made to the appropriate authorities. From extensive experience in school settings, the author has also found that hearing-impaired children that also have additional health conditions such as epilepsy, physical disabilities or craniofacial abnormalities are also more likely to be at risk of a low self-esteem and social isolation.

Family dynamics often play a role in the social-emotional functioning of deaf and hard-of-hearing children. Ninety percent of children with a hearing loss have parents with normal hearing (Vaccari & Marschark, 1997). In our experience, parents without hearing impairments may not fully understand the nature of their child's condition and experience and how they can best help. Young pre-lingual deaf children often have no formal means of communication, which can result in behaviour difficulties such as frequent tantrums (Stevenson et al., 2015). Deaf children who attend schools that utilise Auslan (Australian Sign Language) may not have family members who can understand their Auslan or not understand at the level at which they themselves can communicate. Therefore, hearing status of parents has been found to play an important part in a deaf child's psychosocial adjustment (Charleston, Strong, & Gold, 1992; Polat, 2003). Specifically, it has been found that deaf children who have deaf parents often have better adjustment than deaf children of hearing parents (Charleston et al., 1992; Polat, 2003). Deaf parents are able to provide early access to sign language and model healthy coping and social-emotional regulation skills to manage their feelings surrounding the difficulties they face due to hearing impairment (Calderon & Greenberg, 2003). This type of incidental learning is not available to deaf children of hearing parents. Deaf parents may also introduce their child to the deaf community, which proves to be a valuable support system for many deaf individuals (Bat-Chava, 1993).

The deaf and hard-of-hearing student population is not only linguistically diverse but culturally diverse as well. School psychologists need to develop a cultural awareness and sensitivity to these students in order to work effectively with them and their families. For many deaf individuals, 'deaf culture' is a positive term indicating a sense of pride and communal identity (Coll, Cutler, Thobro, Haas, & Powell, 2009). Mental health professionals treating this population should work to promote deaf culture, as it has been found to act as a protective factor by uniting the deaf community and providing the deaf individual with a sense of belonging (Coll et al., 2009). When working with children and adolescents, it's important to note that deaf youth develop their cultural identity in much the same way as other cultural groups. That is, some deaf adolescents align themselves strictly with the deaf community, some align with the hearing community, and some waver in between for a period of time (Coll et al., 2009). Having knowledge of the nuances of this cultural assimilation is useful to a school psychologist's understanding of the deaf student.

Interventions for Hearing Impairments

Hearing assistance devices. There are a wide variety of devices to assist hearing by amplifying the sound. Hearing aids are prescribed by audiologists for sensorineural hearing loss and are usually behind the ear devices with a mould in the ear.

Cochlear implant (CI). A cochlear implant is suitable for many, but not all people with a severe to profound sensorineural hearing loss. It stimulates the auditory nerve through a device implanted under the skin near the ear with an electrode going into the cochlear. A speech processor is worn externally behind the ear and connected by a coil with a magnet that sends a signal to the implanted device and provides approximations of speech sounds and partial hearing (National Institute of Deafness and Other Communication Disorders, 2016).

Hybrid versions of the cochlear implant now are potentially useful for people with a wider range of hearing loss. People with a sharply sloping loss may be suitable for this device, and some residual hearing may often be retained. It may be worn in conjunction with a hearing aid for the more low frequencies where the hearing loss is less severe.

The cochlear implant can provide an excellent form of hearing and enable the development of normal language and speech. However, a significant number of children with a cochlear implant do not respond well to it and gain little spoken language (Humphries et al., 2014). It may be that though they 'hear' some tones, the signal is not clear enough to easily develop speech.

Auslan. Australia's visual sign language, Auslan, has its own grammar and is based on the movement of two hands in various shapes and in relation to various locations on the body. Facial expressions are included, as well as finger spelling of some words (Victorian Deaf Education Institute [VDEI]).

Latest research recommends that children born deaf should learn sign language from the beginning, regardless of an eventual CI or hearing aid, because signing can stimulate language areas of the brain at an early age (Humphries et al., 2014). Auslan lessens the frustrations by providing a vital means of visual communication and is a scaffold for adjusting to the auditory language of a hearing device. In addition, those who primarily use Auslan are often part of a cohesive deaf social group who do not see themselves as 'lacking' hearing but rather as a distinct community with their own language. There are times when parents resist a cochlear implant for their child in fear of them not being part of the Auslan deaf community (Leigh & Marschark, 2005; Sparrow, 2005).

The school psychologist assisting a family with a student who is deaf who are Auslan signers needs to be sensitive to the deaf culture or community to which the family belongs. Auslan interpreters assist with communication, as relying on lip-reading or written notes is generally not satisfactory.

School-Based Communication, Accommodations and Assistance

Students with a bilateral hearing impairment of a moderate or greater level may be eligible to attend a special school for the deaf or a hearing unit in a regular school or apply for disability funding. Those with a mild loss or loss in only one ear are often not eligible for special assistance.

Specialist schools for students with a hearing loss generally adopt a bilingual approach to communicate with students and encourage the use of Auslan, speech and other modes of visual communication with gestures, mime, pictures and photographs. In the author's experience, this approach can greatly reduce the child's frustration of having difficulty communicating, especially if they are very young or have additional needs. Some regular schools have a hearing-impaired unit to provide specialist assistance to children with hearing issues provided by trained teachers of the deaf in a regular school. Hearing-impaired students generally work with a specialist visiting teacher (VT) for the deaf who often develops a close relationship with the student and family. The student may have also received additional disability funding and have access to other assistance including an integration aide. One of the authors (FB) has found that

regular program support meetings are very valuable at least once each term and involve the school psychologist, the VT and the hearing-impaired student's parents or caregivers. It may be appropriate for the student to be included in these meetings or at least their opinions should be sought prior to the meeting, in order for difficulties to be discussed and appropriate supports put in place.

Some schools have installed a soundfield system (of which there are many competing companies and models), which can function as a mono, a stereo or a surround sound microphone to clearly amplify the teacher's voice to be louder than the background noise of the classroom. Other devices are remote microphone systems or FM systems, which broadcasts the teachers' voice via the microphone directly to the hearing aid or cochlear implant. The voice is then very clear and loud without background noise or reverberation. They have a long range and are also beneficial outside for physical education lessons or school assemblies. In the author's experience, a common difficulty is that teachers fail to regularly wear the microphone and are at times under the misguided belief that it makes little difference. The student is often too shy or embarrassed to remind the teacher to wear the microphone. Furthermore, young children need their hearing aids or CI checked daily to ensure they are functioning correctly and must have spare batteries available at school. The school psychologist may work with teachers to establish protocols retesting hearing devices to see that they are functioning and being brought to school. Developing hearing-impaired student's independence in the maintenance and use of hearing devices should be the ultimate aim.

There are specific safety issues for a hearing-impaired student such as when they are unable to hear school bells, alarms or other children approaching. Other problems regarding road safety or the likelihood of being separated on excursions are created by not hearing well from a distance and also the inability to wear hearing devices in some situations such as swimming. Waterproof hearing aids and cochlear implants have recently become available at extra expense.

Academic Interventions for Deaf Students

Deaf students tend to underachieve in all academic areas for a variety of reasons related to their difficulty acquiring information without the ability to hear (Kyle & Harris, 2006; Panter & Bracken, 2009). School psychologists can make several recommendations for academic interventions for deaf students and may need to frequently observe classrooms to ensure that teachers are communicating successfully and using effective instruction with deaf and hard-of-hearing students.

As discussed previously, many deaf students struggle with reading and writing development due to delays in acquiring language and vocabulary (Beck & McKeown, 2007; Williams, 2012). When formal schooling begins, many children who are deaf or hard of hearing have limited fluency in a spoken or signed language, and their understanding of print and literacy concepts is poor (Marschark & Wauters, 2008). Deaf children do not have access to the phonological code that allows them to map the verbal language they already know to the printed words on a page (Ferrell, Bruce, & Luckner, 2014). Most sign languages (such as Auslan) also have unique vocabularies, morphologies and syntaxes, which do not correspond with spoken or printed English (Fischer & van der Hulst, 2011). School psychologists should be aware of helpful strategies and interventions to increase literacy skills with deaf and hard-of-hearing students. Specifically, visual phonics, hand cues and creating written symbols to represent phonemes in English have been found to be effective interventions for deaf children (e.g. Trezek & Malmgren, 2005; Trezek, Wang, Woods, Gampp, & Paul, 2007). Finger spelling can also offer a visual demonstration of printed letters and can serve as a useful tool when decoding print (Haptonstall-Nykaza & Schick, 2007). Additionally, repeated readings have been shown to improve word recognition, reading rates and comprehension (Ensor & Koller, 1997; Schirmer, Therrien, Schaffer, & Schirmer, 2009).

Research out of the United States indicates that most deaf or hard-of-hearing students graduate from high school at a sixth-grade level in mathematics

procedure and a fifth-grade level in problem-solving (Traxler, 2000). Deaf students often struggle with technical vocabulary, making it difficult to understand math concepts (Pagliaro, 2010). These students have also demonstrated deficits in their understanding of conditionals, including if/then statements, comparatives (e.g. more than) and abbreviations (e.g. lbs) (Ferrell, Bruce, & Luckner, 2014; Pagliaro, 2010). Low reading ability may also contribute to poor performance in mathematics due to the difficulty of understanding word problems (Ferrell, Bruce & Luckner, 2014). When attempting to solve word problems, deaf students often pick out the numbers and combine them coincidentally without regard for context (Frostad & Ahlberg, 1999; Pagliaro & Ansell, 2012). The literature on deaf education suggests that school psychologists should implement mathematics interventions that emphasise memorisation, drill-and-practice exercises and worksheets and practice investigating open-ended problems (Pagliaro & Ansell, 2002, 2012; Pagliaro & Kritzer, 2005). Additionally, students who are deaf or hard of hearing need to be explicitly taught and made to use technical mathematics vocabulary, and educators should integrate mathematics concepts and critical thinking throughout the curriculum to support better problem-solving and analytical skills (Pagliaro, 2010; Pagliaro & Kritzer, 2005).

Professional Practice Issues for School Psychologists

Psychological assessment of deaf students. It is recommended that a hearing-impaired student has a cognitive and achievement assessment in the early, middle and later years of schooling (Wood & Dockrell, 2010). Assessments may be required for funding purposes or for placement into special schools for children who also have an intellectual disability or autism. Conducting cognitive and academic evaluations of deaf or hard-of-hearing students can be challenging for a multitude of reasons. For example, many deaf students are able to master academic content, but their ability to demonstrate their understanding of material is often compromised due to communication and language delays (Gilbertson & Ferre, 2008). A large percentage of students who are deaf or hard of hearing also present with additional disabilities (Blackorby & Knokey, 2006; Gallaudet Research Institute, 2011), which can complicate the gathering of disability-specific data (Cawthon, 2007; Soukup & Feinstein, 2007). Additionally, norm-referenced tests call for reading ability for assessing skills other than reading, and test scores may reflect reading deficits rather than the student's true level of understanding of certain tasks or content areas (Gilbertson & Ferre, 2008; Luckner & Bowen, 2006). Further, research has shown that, due to a lack of assessment resources for this population, professionals working with deaf or hard-of-hearing children often do not use validated procedures to assess their academic and cognitive functioning (Luckner & Bowen, 2006). Less structured methods such as professional judgement, informal inventories and teacher-made tests are commonly reported as core components to the academic assessment of these children (Luckner & Bowen, 2006). Unfortunately, these assessments may be inaccurate or invalid and are often used to guide interventions and educational placement decisions. Therefore, it is imperative that the assessment of cognitive functions needs to be based on multiple sources of information including life history, medical reports, speech pathology and adaptive behaviour scales such as the Vineland Adaptive Behaviour Scales (Sparrow, Ciccetti, & Balla, 2006).

Academic abilities, such as reading accuracy and comprehension, spelling and written abilities should also be assessed. A language assessment with a speech pathologist will also be useful and revealing. Some hearing-impaired students may appear to have adequate speech and language, but there may be issues with areas of grammar or vocabulary that have not been recognised. When assessing a hearing-impaired student, any test result interpretations need to consider the impact the sensory loss has on the results against other impact factors that are not directly related to their level of deafness.

Cognitive assessment of deaf children. Modifications to administration of some cognitive assessment tools may be necessary. Recent

research with adolescents investigated the use of an Auslan version of the Strengths and Difficulties Questionnaire and reported acceptability of a translation process. Results showed acceptable levels of reliability and internal consistency for the Auslan version of the self-report as corresponding with those obtained for the written version (Cornes & Brown, 2012). If the student's first language is Auslan or if they have a strong knowledge of Auslan, presenting the non-verbal subtests with Auslan and spoken English is acceptable. Although not always possible, it is preferable if the psychologist has Auslan skills so as not to introduce an interpreter to the testing situation, which may change the dynamic, rapport and outcomes in the assessment situation (Bontempo & Napier, 2011).

We strongly recommend that verbal subtests should not be interpreted into Auslan, which is normed by both administration and responses being in English, as doing this would significantly reduce the validity of the score. Not modifying the test maintains the integrity of the test, and the student's verbal scale result can be a good gauge of their English ability. However, we do believe that non-verbal subtests can use Auslan to clarify the directions and instructions. This modification should be declared and explained in the report. We do think it is important that the test examiners review the administration and scoring manual of any instruments chosen as often the test publishers provide guidelines as to administration with deaf and hard-of-hearing students.

Wechsler Preschool and Primary Scale of Intelligence: Fourth Edition

There are six indices that comprise the Full Scale Score of the WPPSI-IV (Wechsler, 2012a, 2012b), including verbal comprehension, which is very likely to be reduced by deafness. Therefore, there may be a significantly different result in verbal and non-verbal scores on a Wechsler test resulting in a Full Scale that unfairly labels a child as having an intellectual disability on the basis of being under a certain cut-off score. Great care needs to be taken to ensure that the child is being fairly assessed and not diagnosed incorrectly as having a cognitive deficit when it is their sensory deficit that has caused a low score (WPPSI-IV, Administration and Scoring Manual). Based on the author's and field colleagues' experiences, the perceptual subtest Picture Concepts of Wechsler's Performance scale appears to include some linguistic categorisation content that can disadvantage a deaf student with reduced English language.

The WPPSI-IV has additional subtests that are non-verbal and give a good indication of overall cognitive ability for assessing children under 7 years and 7 months. The Non-verbal Index (NVI) is composed of five non-verbal subtests. The WPPSI-IV Technical and Interpretive Manual states:

> The NVI may offer a more appropriate estimate of overall ability than the FSIQ for children with expressive language delays, with clinical conditions associated with expressive language problems (e.g. autism spectrum disorders) or who are English language learners, due to the relatively reduced verbal demands of its contributing subtests. (p. 149)

Deafness and hearing impairment could be the 'clinical condition' that is associated with language problems, and the NVI can therefore be very useful and perhaps more valid than a Full Scale IQ (FSIQ). If the scores on this are also low, then additional information needs to be sought from other sources about the possibility of the child having an intellectual disability.

Wechsler Intelligence Scale for Children: Fifth Edition (WISC-V)

Designed for age range 6–16 years and 11 months, the WISC-V (Wechsler, 2014), Visual Spatial Index (VSI) and Fluid Reasoning Index (FRI) comprise three core and three optional non-verbal subtests. Processing Speed Index (PSI) is also non-verbal as is Picture Span in the Working Memory Index (WMI). These subtests give an indication of cognitive ability. The verbal comprehension and digit span subtests within the WMI are composed of verbal tasks, and a hearing-impaired student will be disadvantaged in these

and likely to achieve a lower score. This needs to be stated in the report. If the verbal subtests are significantly lower than the other visual indices at a 0.05 level, it means that there is likely to be an effect due to deafness, and the Full Scale Score will then be invalid and should not be viewed as the most representative score of the child's overall ability. The Non-verbal Index is derived from the six non-verbal subtests from four of the five primary cognitive domains and therefore will give a good indication of overall cognitive ability. While the WISC-V manual does not make any explicit statement as to its use with students with a hearing loss, we believe that it may be helpful to give more weight to the non-verbal subtests as estimated of the child's overall cognitive ability.

Wechsler Non-verbal Scale of Ability (WNV)

Pictorial rather than oral instructions are used to administer the WNV (Wechsler & Naglieri, 2006), and non-verbal English is required. It is especially useful for people with hearing loss because it can be administered in English, Auslan, another spoken language or non-verbally. This test is appropriate especially if the deaf child's cognitive ability is being questioned, but, if for the purpose of determining an intellectual disability, then an assessment of adaptive behaviour, such as the Vineland Adaptive Behaviour Scales, will also be required.

Table 1 outlines some other useful psychological tests that do not require the child to possess high-level verbal functioning.

Comorbidities and Complicating Factors

Some deaf children have additional needs that have an impact on their ability to acquire speech, such as an intellectual disability, autism spectrum disorder (ASD) or language disorders. Approximately 1 to 2 % of the hearing population have autism, but approximately twice as many children with sensorineural deafness are diagnosed with ASD (Szymanski, Brice, Lam, & Hotto, 2012). Children with Down syndrome have an increased likelihood of having a conductive hearing loss, often due to narrow ear canals and chronic otitis media which further reduces their auditory input and language ability (Fisher, 2015; Roizen, N. et al 1993). Hearing loss is also associated with vestibular disorders, which can lead to dizziness and poor balance (Santos, Venosa, & Sampaio, 2015). Language disorders in addition to a hearing impairment can have severe effects on learning, socialisation and behaviour. It has also been noted that if a child's first language is not English, their Auslan signing ability can be adversely affected as well (Willoughby, 2009).

The school psychologist may be required to assist in the diagnosis of ASD or social communication disorder. This can be difficult as some of the diagnostic criterion can be affected by hearing impairment. The delay in development of spoken language, listening difficulties, abnormality in aspects of spoken language or difficulties in some social situations could be a result of a hearing impairment rather than symptoms of autism. Carefully taking note of the developmental history and liaising with a paediatrician, audiologist and speech pathologist with knowledge of deafness as well as autism may assist in an accurate diagnosis (Pringle, Colpe, Blumberg, Avila, & Kogan, 2012).

Testing Auslan Ability

Released in 2014, the 'Auslan Assessment Tool' was developed by the Victorian Deaf Education Institute (VDEI) in conjunction with La Trobe University, Australia, to measure a student's level of development in Auslan. This is relevant for schools because some students appear to communicate clearly using Auslan, but a deeper examination can indicate difficulties with grammar, word knowledge and accuracy of expression, all of which can impact their English language development. Any professional such as a teacher, psychologist or speech pathologist wishing to implement the tool needs to complete the accredited training offered through VDEI and associated trainers (VDEI website, http://www.deafeducation.vic.edu.au).

Table 1 Alternative cognitive and ability tests for students with hearing impairments

Children's Category Test (CCT)	Hammill, Pearson and Wiederholt	5 to 16:11
Designed to measure complex intellectual functioning of higher-order cognitive abilities. It can accommodate the needs of children with colour acuity problems and may be appropriate for children with severe motor difficulties		
Comprehensive Test of Non-verbal Intelligence, Second Edition (CTONI-2)	Hammill, Pearson and Wiederholt	6 to 89:11
A popular norm-referenced test that uses non-verbal formats to measure general intelligence of children and adults whose performance on traditional tests might be adversely affected by subtle or overt impairments involving language or motor abilities. The *CTONI-2* measures analogical reasoning, categorical classification and sequential reasoning, using six subtests in two different contexts: pictures of familiar objects (e.g. people, toys, animals) and geometric designs (unfamiliar sketches and drawings)		
Leiter International Performance Scale, Third Edition	G. Roid, L. Miller, M. Pomplun, C. Koch	3.0 to 75+
Useful with those who are cognitively delayed, non-English speaking, hearing impaired, speech impaired or on the autism spectrum. Individually administered, has game-like tasks that assess cognitive, attention and neuropsychological abilities		
Naglieri Non-verbal Ability Test Second Edition (NNAT-2)	J. Naglieri	4.0 to 18
Used to evaluate general populations and also students with limited English, hearing impairment and diverse backgrounds. Pencil and paper or online test, pictorial instructions and requiring no spoken or written English. New and expanded norms 2011		
Raven's Advanced Progressive Matrices (APM)	John C. Raven	12:0 to 16:0; 17:0+
Measures high-level observation skills, clear thinking ability and intellectual capacity. Untimed test and designed to differentiate between people at the high end of intellectual ability. When administered under timed conditions, the APM can also be used to assess intellectual efficiency—quick and accurate high-level intellectual work. Assesses non-verbal abilities at three levels		
Raven's Coloured Progressive Matrices (CPM)	John C. Raven	5:0 to 11:0
Raven's CPM measures clear thinking ability. Produces a single raw score that can be converted to a percentile based on normative data collected from various groups. Assesses non-verbal abilities at three levels		
Raven's Standard Progressive Matrices (SPM) 1998	John C. Raven	6 to 80
Used widely in clinical, educational, occupational and research settings as a leading global non-verbal measure of mental ability, helping to identify individuals with advanced observation and clear thinking skills. Contains 60 items divided into 5 sets of 12		
Universal Non-verbal Intelligence Test (UNIT)	Bruce Bracken and R. Steve McCallum	5.0 to 17
Designed to measure general intelligence/cognitive ability. Claims to be fair to all students irrespective of race, ethnicity, sex, language, country of origin or hearing status and is standardised and norm referenced		

Source: www.acer.edu.au; www.pearson.com.au

Applying for Special Assistance Funding for Students in Schools

Deaf and hard-of-hearing students are generally assessed in order to gain information about the abilities and needs of the student. The following are needed to provide the most comprehensive information for an application for additional funding from the state education department:

1. Current audiology report and past reports
2. Report from a medical practitioner detailing the medical facts and cause of deafness if known
3. Speech pathology reports, both past and present, with details of speech and language assessments including non-verbal communication if available
4. Occupational therapy and physiotherapy reports if available
5. Psychologist's reports including results of earlier assessments

People who are deaf or hard or hearing and between 7 and 65 years may obtain support and funding through the Australian Government National Disability Insurance Scheme (NDIS).

Special Provision for Students in Senior School Years and Their Final Examinations

Depending on the location of the school and the resources available, applications can be made by the school for school-based examinations and special provision such as rest breaks and extra time for reading and writing. The student may also be allowed an extra person as a 'clarifier' to explain and simplify the examination questions. Applications generally seek evidence of a medical statement and report from the psychologist, assessment results and explanations of the special needs of the student.

Ethical and Legal Issues

Psychologists in schools present a number of ethical concerns that are specific to the nature of working with teams, systems and groups as they frequently need to navigate their way within different levels of system boundaries, conflicting values and beliefs and multiple roles (Lasser & McGarry Klose, 2007).

The psychologist is bound by the code of ethics of their profession, with particular emphasis on professional competency, justice, respect, informed consent, privacy, confidentiality and collection and release of information. The Australian Psychological Society's Code of Ethics and Practice Guide for Assessments of School Age Students in Educational Contexts (APS, 2014) advocate that when working with people with disabilities, including hearing-impaired people, psychologists should recognise their rights and dignity and provide linguistically and culturally appropriate accommodations. There is a recognisable deaf culture, and the perspective of a deaf parent may be different from that of some hearing parents. Deaf Australia is the peak organisation that represents the views of Deaf people who use Auslan (www.deafau.org.au). A range of ethical issues exist related to medical and technological interventions available, such as parents choosing not to have a cochlear implant for their child or genetic testing during pregnancy. Also opinions vary greatly about the value of sign language and the types of education provisions for hearing-impaired students that are available in school settings.

School psychologists need to consider the ethical issues and debates around deafness (see Leigh & Marschark, 2005) and keep the parents and students informed about issues of relevance but ultimately respect their wishes. It is against the law to discriminate against people with a hearing impairment, and this includes if their need is for an Auslan interpreter. The 2010 Equal Opportunity Act (EO Act, 2010) strengthens anti-discrimination laws and states that employers, educational authorities and service providers are required to make reasonable adjustments so that a hearing-impaired person can access educational services. The school psychologist is part of this system to understand and support the hearing-impaired student so that they can achieve at an optimal level and fulfil their potential in all areas of their lives.

Case Study

James is 9.5 years old in year 4 of a state school. He has a moderate to severe sensorineural hearing loss and wears hearing aids consistently. He has been deaf since birth and with a supportive family has had early intervention and speech pathology until he attended school. Assessment at 4 years old with the WPPSI-III indicated a performance score of 110 and verbal score of 88. His speech is fairly easy to understand. An application was made for special funding when he started school, but funding was not allocated. James has a fortnightly visit from the visiting teacher for the deaf. In year 3, the NAPLAN[1]

[1]NAPLAN is Australia's National Assessment Program—Literacy and Numeracy.

indicated significant difficulties with reading, writing and language, but numeracy was average. Early in year 4, he was referred to the school psychologist because of learning issues. Individual diagnostic assessments were conducted.

James' performance on the WISC-IV indicated that his verbal comprehension was mid-low average; performance was the upper end of average range, working memory (derived from verbal subtests) was the mid-borderline, and processing speed was the mid-average. Reading and spelling were 2 years delayed, and James had very poor phonological awareness as measured on the Sutherland Phonological Assessment Test (SPAT; Neilson, 2003). He was a quiet and compliant boy but tended to be socially isolated. James informed the school psychologist that he was sometimes teased and often alone in the playground as he had difficulty following other children's games. In the classroom, he was sometimes left out, as other children were not patient when required to repeat themselves, and he had difficulty following conversations or instructions when there was a lot of chatter and background noise in class. The specialist teachers did not always wear the FM microphone, and James was self-conscious and reluctant to remind them. James lacked confidence, had very few friends and had quite low self-esteem. James' parents were caring and read with him in the evenings, but they could not afford private speech pathology.

The school psychologist arranged a meeting with the teachers, the visiting teacher and the parents. All were given additional materials to assist with James' phonological awareness development at home, including Phonics Alive! (https://phonicsalive.com.au/), a computer program for developing phonic awareness and literacy, and worksheets. The teacher was made more aware of James' hearing and learning issues and was reminded to always use the FM microphone and to ensure it was passed on to all other teachers. The school psychologist in conjunction with the visiting teacher conducted an information session with James' class about hearing loss, hearing aids, how it affects James and what they could do to help. Students were very interested and had not understood that James was not deliberately ignoring them or being unfriendly when he did not reply or replied in a 'strange' way because he had misunderstood them. James was also referred to the school speech pathologist who was able to assess him and conduct some sessions before referring him to a low-cost speech therapy provider. The visiting teacher provided ongoing support and monitoring and met each term with teachers, the school psychologist and parents and changes made to his individual learning plan. From the psychologist's initial interventions, James' language and learning improved, and he was socially engaged, socialised more and displayed increased confidence.

Due to the language learning difficulties identified associated with his hearing loss, an application for integration funding in the hearing impairment category was successful. The funding paid for some hearing amplification equipment for his use at school, some computer programs and time with an integration aide to help him in the classroom.

Summary and Conclusion. James was identified as a student with a moderate to severe sensorineural loss when he first entered school. Hearing losses greater than moderate have been shown to lead to language deficits and learning issues. He would have benefited from the involvement of the school psychologist, school speech pathologist, visiting teacher, class teacher and his parents from the start of his schooling with regular meetings and earlier interventions. These could have reduced the learning, social and emotional difficulties that later developed.

Test Yourself Quiz

1. What role does the school psychologist play when there is a need for assessment and/or academic intervention for a deaf or hard-of-hearing student? Why is it important for a school psychologist to be knowledgeable about hearing impairments?
2. How does hearing impairment affect a child's ability to learn and achieve at school? What academic areas are most affected?

3. A school psychologist may be required to make referrals to other specialists when working with a deaf or hard-of-hearing student. What other school-based or medical professionals are involved in the treatment of deaf or hard-of-hearing students?
4. In what ways are hearing impairments related to psychiatric diagnoses? What are some ways a school psychologist can address mental health issues with this population?
5. How might a deaf or hard-of-hearing student's family dynamic impact upon their academic achievement and/or social-emotional functioning? What role does deaf culture play?

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School Psychological Practice with Students with Sleep Problems

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Introduction

Sleep problems are highly prevalent among school-aged children and adolescents, with estimates from 25 to 50 % in school-aged children (Schlarb, Velten-Schurian, Poets, & Hautzinger, 2010) and from 33 to 75 % for adolescents (Donaldson & Owens, 2006). International prevalence rates of sleep problems may be underestimated, as many parents and children do not report sleep problems that nevertheless may still be clinically significant and have adverse consequences on a child's cognitive, academic, social/emotional, behavioral, and health functioning (Schreck & Richdale, 2011).

There are a number of different sleep problems that can present during the school years. The International Classification of Sleep Disorders (ICSD-3; American Academy of Sleep Medicine [AASM], 2014) describes sleep disorders in six categories: insomnia, sleep-related breathing disorders (e.g., sleep apnea), central disorders of hypersomnolence (i.e., excessive daytime sleepiness), circadian rhythm sleep-wake disorders, parasomnias (e.g., sleep walking, sleep terrors, nightmares), and sleep-related movement disorders (e.g., restless legs syndrome). A full discussion of all of these sleep disorders is beyond the scope of this chapter, which will instead focus on the most common disorders for school-aged children and adolescents and the areas in which school psychologists may have the greatest input. For the primary school years, the focus of this discussion will be on insomnia. For the high school years, the focus will be on delayed sleep-wake phase disorder, one of the circadian rhythm sleep-wake disorders. While the parasomnias are also some of the most common sleep disorders in childhood, they are typically considered transient disruptive phenomena and often disappear by adolescence (Laberge, Tremblay, Vitaro, & Montplaisir, 2000) (for more information about the characteristics and treatment of parasomnias, see Kotagal, 2009).

According to the ICSD-3 (AASM, 2014), insomnia is defined as a persistent difficulty with initiation, maintenance, consolidation, or quality of sleep that occurs despite adequate opportunity and circumstances and results in one or more negative consequences during the day. In children, daytime symptoms can include issues such

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as poor school performance and attention and behavior difficulties, while nighttime sleep difficulties may present as bedtime resistance or inability to fall asleep without parental assistance (AASM, 2014). In line with this, a child's sleep difficulties may appear to "resolve" when their desired conditions for sleep are met (e.g., when a parent is present) but may "reappear" if the child is forced to sleep alone.

Delayed sleep-wake phase disorder (DSPD) is characterized by a significant delay in sleep timing in relation to the desired or required sleep schedule, as evidenced by a chronic difficulty falling asleep at the desired time and difficulty waking in time for morning commitments (AASM, 2014). In contrast, when these adolescents are allowed to sleep on their preferred sleep schedule, they have no difficulty falling asleep (AASM, 2014; Donaldson & Owens, 2006). As children enter adolescence, physiological changes occur which result in a delay of the circadian rhythm (aka "body clock") sleep cycle (Owens, Adolescent Sleep Working Group, & Committee on Adolescence, 2014), and, therefore, a delayed sleep pattern typically begins during adolescence (AASM, 2014). The prevalence of DSPD is 7–16 % (AASM, 2014) although a recent study of Australian high school students found higher prevalence for subclinical symptoms of delayed sleep timing (i.e., 66 % of adolescents met either one or two of the DSPD criteria; Lovato, Gradisar, Short, Dohnt, & Micic, 2014). For these adolescents, early school start times may result in a significant reduction in sleep duration and an increase in excessive daytime sleepiness (Owens et al., 2014). As a result of their sleep behavior, these adolescents may become chronically sleep deprived, which may result in adverse cognitive, behavioral, and emotional consequences (Owens et al., 2014).

Consequences of Sleep Problems and Common Comorbidities

Sleep problems significantly affect children's daily functioning across many domains, including health, mood, behavior, cognition, learning, and social (Buckhalt, Wolfson, & El-Sheikh, 2009; Owens et al., 2014; Price et al., 2014). Behaviorally, sleep problems can result in higher levels of externalizing behavior problems such as poor impulse control, tantrums, increased disruptive behavior, and aggression (Bates, Viken, Alexander, Beyers, & Stockton, 2002; Donaldson & Owens, 2006). Affectively, several studies with nonclinical samples have shown relationships between sleep problems and mood dysfunction such as irritability, depression, exacerbation of negative mood, decrease in positive mood or affect, and impaired regulation of mood (Bates et al., 2002). Cognitively, sleep problems can impair attention, memory, learning, visuospatial abilities, creativity, psychomotor performance, and higher-level functions, such as cognitive flexibility and the ability to reason and think abstractly (Buckhalt et al., 2009; Dewald, Meijer, Oort, Kerkhof, & Bogels, 2010). Therefore, sleep problems impact academic performance, learning, and social adjustment in school (Buckhalt et al., 2009; Dewald et al., 2010; Donaldson & Owens, 2006). The symptoms of sleep problems in children are often misinterpreted as laziness, lack of interest, poor motivation, depression, limited intellect, and attention-deficit hyperactivity disorder (ADHD; Sadeh, Raviv, & Gruber, 2000). Therefore, it is important for school psychologists to be aware of these symptoms and to educate those they work with in order to ensure appropriate screening and possible treatment.

Several emotional disorders, including affective disorders, post-traumatic stress disorder (PTSD), and anxiety disorders, feature sleep problems prominently in their clinical symptoms and diagnostic criteria (American Psychiatric Association, 2013). Further, sleep problems commonly co-occur with several chronic childhood psychiatric disorders, such as ADHD, mental retardation, learning disabilities, and autism spectrum disorders (ASDs) (Cohen-Zion & Ancoli-Israel, 2004; Moon, Corkum, & Smith, 2011; Stein, Mendelsohn, Obermeyer, Amromin, & Benca, 2001). From a developmental perspective, it appears that, earlier in childhood, sleep problems may result in more externalizing problems,

while middle and late childhood sleep problems may result in more internalizing symptoms (Bates et al., 2002). Up to 25 % of children diagnosed with ADHD are suspected to actually have a primary sleep disorder that accounts for at least a portion of their behavioral dysregulation (Donaldson & Owens, 2006), and significant behavioral improvements can occur after a clinical intervention to improve sleep (Bates et al., 2002). Further compounding the problem, many children diagnosed with ADHD take stimulant medications that can cause insomnia, disrupting sleep duration (Cohen-Zion & Ancoli-Israel, 2004). In addition, the daytime consequences of sleep disturbance may mimic the symptoms of a learning disorder, and interventions aimed at improving children's sleep may result in associated improvement in learning (Stores, 2007). While sleep problems may commonly co-occur with other psychiatric disorders, it is important for school psychologists to recognize sleep problems as a distinct comorbid disorder, rather than a symptom of the psychiatric disorders, in order to fully understand and to provide appropriate treatment for the sleep problem.

As mentioned previously, 30–80 % of children with severe mental retardation and approximately 50–70 % of children with pervasive developmental delay and autism experience significant sleep problems (Donaldson & Owens, 2006; Sikora, Johnson, Clemons, & Katz, 2012). Children with autism spectrum disorders (ASDs) who also have sleep problems, compared to those in the same diagnostic category without sleep problems, show more externalizing and internalizing behaviors and poorer communication, socialization, and daily living skills (Sikora et al., 2012). It is unclear whether ASDs lead to the sleep problems or the sleep problems exist independently and contribute to the ASDs, possibly worsening the symptoms.

Sleep patterns and sleep problems in children are not only influenced by biological and psychological factors but also by cultural, social, and family factors (Buckhalt, 2011; Liu, Liu, Owens, & Kaplan, 2005; Sadeh et al., 2000). Cultural factors in sleeping practices exist and are highly relevant in a multicultural Australian school environment. For example, bed sharing and co-sleeping are common in Asian cultures but less common in Caucasian cultures (Liu et al., 2005). Despite very little empirical research in this area, this is likely to be similar in Australian indigenous communities (e.g., see Musharbash, 2013). Sleep habits also vary between countries, with school start time contributing to differences in sleep duration (Owens et al., 2014). For example, in the United States, 75 % of adolescents report sleep durations of less than 8 h on weekdays and then compensate by oversleeping up to 2 h or more on the weekends, and in South Korea, the average sleep duration for adolescents is 4.9 h (Owens et al., 2014). In contrast, Australian adolescents (students 17 and over) report between 8.5 and 9.1 h of sleep on weekdays and 9.3 h on weekends (not significantly different from weekdays) and appear to start school later with an average reported weekday wake time of 7:00 AM or later (Owens et al., 2014). Within Australia, there has been very little research into differences between sleep practices of indigenous vs. non-indigenous children, although one study found similar prevalence of sleep problems for both samples of children (Blunden & Chervin, 2010).

Social demands include work, school, and entertainment (Sadeh et al., 2000), and, for children, this may include issues such as over-scheduling and/or technology use (Cain & Gradisar, 2010; Owens et al., 2014). Despite the widespread view that the use of electronic media has a detrimental impact on sleep, a recent meta-analysis suggests that correlations between adolescent technology use and sleep are small (Bartel, Gradisar, & Williamson, 2015). The causal direction of this relationship is difficult to establish, with one recent study of university students suggesting that electronic media use may be a means of coping with poor sleep (Tavernier & Willoughby, 2014), while another study found that parent-set limits on technology use were associated with earlier bedtimes for adolescents (Pieters et al., 2014). Many teenagers also report using mobile phones after sleep onset, which results in disruption to nighttime sleep (Van den Bulck, 2007), and with the proliferation of mobile technologies, more research is clearly needed in this area.

In relation to family factors, parenting plays a large role in the development of healthy sleep hygiene. Children's sleep problems affect parent's sleep quality and quantity, leading to fatigue and mood disturbances and, thus, decreased levels of effective parenting. Children rely on their parents to create consistent sleep schedules and routines. Recent research has found that children with inconsistent bedtimes have more behavioral difficulties than children who had regular bedtimes, and, when children change from having an inconsistent to consistent bedtime, their behavior problems improve (Kelly, Kelly, & Sacker, 2013). Parents report child sleep difficulties as frustrating and stressful (Byars, Yeomans-Maldonado, & Noll, 2011). However, the relationship is bidirectional, as family stressors can lead to poorer sleep quality and a more chronic sleep disturbance in children, which in turn can affect the adjustment of children (Bates et al., 2002; Byars et al., 2011; Sadeh et al., 2000). Consulting and collaborating with parents on sleep problems and interventions is an opportunity for school psychologists to help reduce stress and frustration for the parents and family.

Finally, low socioeconomic status is proposed to put children at a higher risk for experiencing trauma and family stress, along with having cramped or inadequate sleeping environments, which are all risk factors for developing and maintaining sleep problems (Buckhalt, 2011). These children are also likely to have limited access to health-care services and likely to suffer more serious consequences from their sleep problems than their less vulnerable peers. With schools as primary care facilities for identifying sleep problems, these vulnerable children may be more likely to be identified as in need of and receive treatment.

How School Psychologists Can Help: Assessment and Screening

Current knowledge and expertise about pediatric sleep disorders is limited by a lack of appropriate teaching and training (Sakakini, 2008). Because little is known about pediatric sleep disorders and how to diagnose and treat them, only 3.7 % of children with sleep disorders are being diagnosed and treated (Meltzer, Johnson, Crosette, Ramos, & Mindell, 2010). Typically, school psychologists are not trained in the assessment, diagnosis, or treatment of sleep problems (Sakakini, 2008) and have poor knowledge about the etiology, diagnosis, and treatment of pediatric sleep problems (Sakakini, 2010). However, reading three articles alone has been shown to significantly increase school psychologists' knowledge (Sakakini, 2010) and allows them to become more cognizant of the signs and symptoms of sleep disorders, as well as the potential impact that these disorders can have on the educational outcomes of children, in order to make a proper referral or provide treatment for the student exhibiting symptoms of a sleep disorder.

It is critical for school psychologists to query about sleep habits during the initial stages of engagement with a student and during standardized assessment. However, current social-emotional-behavioral measures utilized by school psychologists only include an average of two items that assess sleep (Sakakini, Braverman, & Terjesen, 2012). Lewandowski, Toliver-Sokol, and Palemo (2011) provide an evidence-based review of subjective pediatric sleep measures. Several measures with "well-established" research evidence include the Pediatric Daytime Sleepiness Scale (Drake et al., 2003; a self-report measure of daytime sleepiness for children) and Children's Sleep Habits Questionnaire (Owens, Spirito, & McGuinn, 2000; parent-report, broad screening tool for sleep problems in children). Furthermore, the Sleep Disorders Inventory for Students (SDIS; Luginbeuhl, 2005), a screening tool for sleep disorders, was developed specifically for use by school psychologists and has accurately identified approximately 71 % of children and 79 % of adolescents with sleep disorders (Luginbeuhl, Bradley-Klug, Ferron, Anderson, & Benbadis, 2008). The SDIS is a screening instrument used to identify students at risk for obstructive sleep apnea syndrome, narcolepsy, periodic limb movement disorder, and delayed sleep phase disorder.

Sleep diaries are an important tool in the assessment of sleep problems for all ages. Ideally, a student should be asked to complete a sleep diary for at least one week before starting any sleep intervention, because this provides important baseline information about his/her sleep that can be used to formulate an individualized treatment plan. The National Sleep Foundation offers a free, child-friendly sleep diary at http://www.sleepforkids.org/pdf/SleepDiary.pdf.

After a sleep problem has been identified, school psychologists can be involved in the design and implementation of sleep interventions. Prior to doing this, school psychologists would want to consult with the school nurse for a health screening and discussion of the sleep concerns. Further, school psychologists also need to be aware of referral pathways for students who have more severe sleep problems and/or those who require medical assessment and/or treatment (e.g., for sleep-related breathing and movement disorders). This would usually involve encouraging the family to discuss the child's sleep issues with their general practitioner, to arrange the appropriate referral to a sleep physician and/or specialist sleep clinic.

How School Psychologists Can Help: Sleep Interventions for Individual Students

There is a large body of evidence supporting the use of cognitive behavior therapy for insomnia (CBT-i) among adults (Morgenthaler, Kramer et al., 2006) and behavioral sleep strategies for young children (i.e., under 5 years old; Morgenthaler, Owens et al., 2006). However, there has been very little research in school-aged children. Several recent studies suggest that similar interventions may be promising for the treatment of insomnia in this population (e.g., Paine & Gradisar, 2011; Sciberras, Fulton, Efron, Oberklaid, & Hiscock, 2011). These studies have used strategies such as education about normal sleep and sleep hygiene, implementation of a regular sleep schedule, and behavioral strategies targeted at the child's individual sleep problem (e.g., limit-setting and "checking," using rewards, relaxation strategies, bedtime fading, graded exposure) and have resulted in improvements in sleep and daytime functioning. A description of these techniques and other common behavioral sleep strategies is presented in Table 32.1. Behavioral interventions for sleep problems are based on basic principles of classical and operant conditioning that aim to reduce or eliminate some behaviors and reinforce others.

Adolescents who display symptoms of DSPD require intervention that directly targets their circadian rhythm timing (Gradisar et al., 2014). The most common intervention involves exposure to bright light at specific times in order to advance the timing of the circadian sleep rhythm. Further details are presented in Table 32.1.

How School Psychologists Can Help: Classroom-Based Sleep Interventions

Classroom-based sleep education programs are a promising way to disseminate information about sleep to a large number of students. These programs usually involve providing students with information about normal sleep, sleep hygiene, and strategies aimed at improving sleep behaviors (e.g., avoiding sleeping-in on weekends; see Cain, Gradisar, & Moseley, 2011, for a sample program outline).

A number of studies have found that school-based sleep education programs are effective in increasing students' knowledge about sleep and a few have found short-term changes in sleep parameters or behavior; however, these improvements do not seem to be maintained in the long term (for a review, see Cassoff, Knauper, Michaelsen, & Gruber, 2013). Therefore, it is important for sleep education programs to focus on increasing students' motivation to change target sleep behaviors, for example, through the use of a motivational interviewing framework (Bonnar et al., 2015; Cain et al., 2011; Cassoff et al., 2013). Parental involvement may also be important, and a recent meta-analysis suggests that motivational interviewing "seems to be most

Table 32.1 Common behavioral sleep strategies for school-aged children and adolescents

Strategy	Suitable for…	Description
Bedtime fading (first used by Adams & Rickert, 1989)	Children with difficulty falling asleep or staying asleep	Bedtime fading is a behavioral sleep strategy used with children that is equivalent to sleep restriction therapy (also known as bedtime restriction therapy), a well-established technique in the treatment of insomnia in adults. For children, this usually involves keeping a sleep diary for 1–2 weeks prior to commencing treatment, such that the baseline total sleep time (TST) becomes the prescribed time-in-bed (TIB) for the first week of treatment. Alternatively, for children who only have difficulty falling asleep (but not staying asleep), their baseline sleep onset time becomes their new bedtime. This is usually implemented together with a positive bedtime routine. After 1–2 weeks of implementing this new sleep schedule, the child will fall asleep quicker and wake less during the night, and their bedtime can gradually be "faded" earlier by 15–30 min at a time, until finding the ideal bedtime for the child
Graded exposure/graduated extinction	Children who require parental presence to fall asleep	Graded exposure procedures involve offering the child a stepped approach to changing their problematic bedtime behavior and is based on common treatment for anxiety. It is often used for children who require parental presence to fall asleep and involves drawing up an exposure "hierarchy" whereby the parent's presence is gradually withdrawn (if the parent is present in the child's room at bedtime) or the child is gradually moved out of the parent's bed/room. This is usually coupled with positive reinforcement (reward) when each step is achieved. This has been used successfully with school-aged children (e.g., Paine & Gradisar, 2011)
		Graduated extinction also involves gradual removal of parental presence at bedtime. After saying goodnight to their child, the parent ignores the child's protests (e.g., crying, calling out) and instead returns to the child's room after a predetermined length of time and provides brief, minimally stimulating contact and reassurance, without removing the child from his/her bed. The parent gradually increases duration between return visits to the child's room until the child falls asleep without the parent present. This is most often used with young children (0–5 years) but can be applied to school-aged children (e.g., Quach, Hiscock, Ukoumunne, & Wake, 2011)

(continued)

Table 32.1 (continued)

Strategy	Suitable for…	Description
Limit-setting and checking	Children with bedtime resistance	Limit-setting involves developing clear rules for appropriate bedtime behaviors and implementing these consistently. One example of a limit-setting intervention is the "bedtime pass program" (Moore, Friman, Fruzzetti, & MacAleese, 2007) in which the child is allowed a set number of "passes" that they can exchange for appropriate requests (e.g., drink, toilet, cuddle) and after all passes have been used the parent then ignores any further requests from the child. This can be combined with positive reinforcement if any passes remain unused
Bright light therapy (for more information, see Gradisar, Smits, & Bjorvatn, 2014)	Adolescents with DSPD	Bright light therapy is an effective way to advance the sleep timing of adolescents with DSPD. The process begins by allowing the adolescent to sleep until they naturally wake up (day 1) and then go outside for exposure to sunlight for at least 30–60 min. On each successive day, they set an alarm to wake up 30 min earlier than the previous day and again go outside for 30–60 min light exposure. This process continues until they reach their desired wake-up time, at which point it is maintained. In line with advancing wake-up times, bedtime is also advanced by approximately 30 min each day, and the individual is encouraged to remain in a dimly lit environment (e.g., only a lamp on in the room, not full overhead lighting) for up to 2 h prior to bedtime. Artificial sources of bright light (e.g., www.re-timer.com) can be used for adolescents who are unable or unwilling to get exposure to morning sunlight
Chronotherapy (for more information, see Gradisar et al., 2014)	Adolescents with DSPD	Chronotherapy involves establishing a baseline by allowing the adolescent to sleep when they desire (i.e., go to bed when sleepy and allow self to naturally wake up). The individual's bedtime and wake-up time are then progressively delayed by a prescribed amount each day (e.g., 2 h) until the desired sleep timing is achieved. There is less empirical support for chronotherapy (compared to bright light therapy), and it is not often used with adolescents as it is very disruptive to schooling (Gradisar et al., 2014)

effective when both parent and child participate in sessions" (Gayes & Steele, 2014, p. 521).

Ethical Considerations

When working with a student who is experiencing sleep difficulties, it is important to communicate with their parents (and, to a lesser extent, their teachers) when formulating a treatment plan. As with all areas of school psychology, this should be done with consideration of issues relating to confidentiality. It is possible that sleep disorders may not yet be stigmatized to the degree depression or anxiety are, resulting in students perhaps being more receptive to admitting a problem with sleep, more open to receiving treatment, and making it easier to communicate with parents and teachers

about sleep problems as a school psychologist. As previously discussed, cultural differences in sleeping practices exist and may influence a family's willingness to change their sleep habits.

Future Directions for Practice and Research

Sleep is receiving increasing recognition as a significant public health problem in all ages. Yet research on treatments for school-aged children and adolescents with sleep problems is lacking. Considerable progress has been made over the past few decades in sleep research detailing the epidemiology and impact of pediatric sleep disorders. A further research question is whether these consequences are reversible with adequate treatment. Despite the exponential growth in pediatric sleep research, this new knowledge does not always reach those who need it most—school psychologists. To bridge this gap between research and practice, it will be essential in the future to develop more efficient strategies to disseminate new knowledge and provide additional training opportunities to school psychologists on pediatric sleep disorders.

Test Yourself Quiz

1. What areas of a child's daily functioning may be affected by a sleep problem?
2. What are three risk factors for a child to develop a sleep problem?
3. What are four assessment tools that a school psychologist could select from to assess for sleep problems?
4. What does a classroom-based sleep intervention usually consist of?
5. Describe the process of graded exposure?

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School Psychological Practice with Vision-Impaired Students

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Imagine all the activities you perform daily and how you would get it all done if you lost your vision. Imagine not being able to pick out your own clothes, not being able to drive to school or work, relying on adaptive equipment to read and write, etc. One possible way to increase sensitivity is to complete workshops where teachers and other school professionals attempt to perform certain activities whilst blindfolded. Tying a shoe, walking from the general office to the cafeteria, eating a meal using a spoon or fork and having a conversation with others without seeing their facial expressions, visual cues and body language might help shed some light on the difficulties visually impaired (VI) students face daily. Many of these children feel discouraged, have low self-esteem and depression (more in girls) and, overall, feel that their disability interferes with their social relationships (Huurre & Aro, 2000). Awareness amongst teachers, other school professionals and peers might help.

School psychologists in Australia are unlikely to be referred a student with vision impairment (VI) unless they are specifically involved with the provision of services to VI students. Psychologists, however, working in school settings with hearing impaired, physically impaired and cognitively impaired students will likely see a higher proportion of students who are VI (see discussion below regarding students with multiple disabilities). The likelihood that a school psychologist will have a blind student referred to them is significantly lower as VI in children is a low-incidence impairment, particularly in wealthy countries (Gilbert, Anderton, Dandona, & Foster, 1999; Jugnoo & Dezateux, 1998; South Pacific Educators in Vision Impairment [SPEVI], 2004).

In the state of Victoria, Australia, there are currently 530 students who are registered as VI (October 2014), and of that number, approximately 90 are blind students. This is out of the total school population of 899,449.7 students in all schools both government and private in Victoria (Statistics for Victorian Schools, 2014). Despite being a low-incidence disability, VI has significant implications for a child and their family in terms of the child's education, social development, personal welfare and employment (Jugnoo & Dezateux, 1998).

Having specific responsibility for students with VI and having considerable experience in working with VI students put the clinician at a significant advantage in assisting students with a VI and their families. In such a position, the authors have been able to develop specialist skills and knowledge in dealing with VI students, their families and the schools they attend. Brock (n.d.)

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proposed a number of prerequisites that psychologists should have regarding their involvement with blind students, and we support these for work with all VI students. These include:

- Possessing knowledge of psychological and sociological aspects of blindness
- Possessing knowledge of performance implications of blindness
- Using assessment instruments appropriate for the blind
- Assessing intellectual, psychosocial and adaptive behaviour and social/emotional skills
- Providing group, individual and family counselling

Typical (non-VI) school psychologists don't often have this experience as the likelihood of becoming involved with a student with VI is small. Due to the relatively low incidence of VI, it is our experience that many graduate programmes do not focus strongly on teaching students how to work with the population. It is likely that most school psychologists develop these skills either during their internships or on-the-job trainings. However, this knowledge is vital, as some school psychologists will undoubtedly be responsible for the social and emotional skill development, psycho-educational assessment, recommendations for learning environment and expectations for VI students. Wall (2002) found that teachers who have more experience with students with VI had more positive attitudes towards the inclusion of children with visual impairments in the classroom. The experienced teachers suggested that giving new teachers of visually impaired children information and providing workshops and opportunities to observe an experienced teacher with a similar child may facilitate positive attitudes. This concept is likely to be true for school psychologists as well. The following is a brief summary of some of the main areas a school psychologist would benefit being knowledgeable about if they become involved in the assessment, counselling or provision of professional advice to individuals, family members and staff in schools for VI students.

What Is Vision Impairment?

To begin, it is important that school psychologists have an understanding of how visual impairments are defined and what are some of the different types of impairment that they may see amongst students. The tenth revision of the WHO International Statistical Classification of Disease (World Health Organization, 1993), Injuries and Causes of Death distinguishes between moderate visual impairments, severe visual impairments and blindness as follows:

- Visual impairment includes low vision as well as blindness.
- Low vision is defined as visual acuity of less than 6/18, but equal to or better than 3/60, or a corresponding visual field loss to less than 20° in the better eye with best possible correction (ICD-10 visual impairment categories 1 and 2).
- Blindness is defined as visual acuity of less than 3/60 or a corresponding visual field loss to less than 10° in the better eye with best possible correction (ICD-10 visual impairment categories 3, 4 and 5).

Visual acuity of 6/18 essentially means that a student will need to be 6 m away from something that students with normal vision can see from 18 m away. In the case of 3/60, this means that a student will need to be 3 m away from something a student with normal vision can see from 60 m. The field loss refers to a loss of peripheral vision leading to what is sometimes called 'tunnel vision'. Individuals with field loss usually have difficulty in low-light conditions or are 'night blind'. Visual acuities, although useful in the eligibility for support for students at school, do not reveal the many complicated and subtle ramifications of vision loss for students in accessing the curriculum and being successful in school.

Within the Australian context (i.e. the various states and territories of Australia and their Departments of Education), these criteria are used for the eligibility for extra support of students. The Department of Education Training and Arts [DETA] (2007) in Queensland notes the following when commenting on the eligibility criteria:

- 'National and International criteria were inconsistent in definitions used. (This seemed to be determined by funding.)
- National criteria were consistent with their usage of:
  - Visual acuity
  - Field loss
  - A report (e.g., functional vision report, educational impact statement or assessment of need)
- Visual Acuity and Field loss varied based on state department funding models.
- No state/territory considers quality of vision or the functions and structures around the eye' (DETA, slide 6).

Functional vision or how a child uses their vision depends on a variety of factors. The factors may be loosely grouped into three categories: medical/visual, psychological and environmental (DETA, 2007). A functional vision assessment (FVA) of a VI student should consider these categories. The recommendations developed from this assessment will provide a student's teacher with strategies to enable the VI student to access the curriculum.

There have been concerns raised in some quarters that diminished vision acuities better than 6/18 still have detrimental effects upon the life and success of individuals. Taylor (2002) argues that vision impairment of <6/12 had significant effects upon daily living and social functioning. Such mild visual impairment could have an impact on learning to read and write, tying shoes, jumping rope, playing with toys with small pieces and colouring. Feeding oneself could be affected as well as, very importantly, self-esteem. Dandona and Dandona (2006) noted that with increasing human development, the visual acuity requirements are also increasing. This would indicate that even a mild visual loss has a greater impact in today's society.

Additionally, many students may present with characteristics of visual impairment, but are not identified as VI students. In the experience of the authors, this may include students who are identified as having multiple disabilities, present with significant health conditions (e.g. cortical visual impairments due to traumatic brain injury or tumour), or are identified as having learning disabilities with deficits identified in visual-spatial processing abilities. As such, it is important for school psychologists to understand the needs of VI students and effective strategies to assess and service these students who may be otherwise unidentified.

Students with conditions that make them very sensitive to light, such as albinism, cone dystrophy, aniridia and achromatopsia, may experience lower vision in bright sunlight or environments with a high light concentration. Personal experience suggests that the functional vision of many VI students may be considerably worse in their school than is measured by an ophthalmologist in a clinical setting due to a glary classroom or on a bright sunny day. Information regarding the variable nature of a student's visual acuities again should be in the FVA report or from their visiting teacher-VI (NB: these teachers are called specialist itinerant support teachers-vision or ISTVs in other states of Australia other than Victoria).

The Causes of Vision Impairment

The causes of VI in children are numerous. The Australian Disability Clearinghouse on Education and Training (ADCET) holds that there is no 'typical' visual impairment because it can be the result of various conditions. The impact of visual impairment is dependent on a variety of factors. The ADCET suggests that some children are blind at birth and others lose their vision later, either gradually or rapidly. Other factors that differ from one visually impaired student to another are light sensitivity and limited peripheral vision. Finally, some individuals experience fluctuations in vision that might affect the degree of light tolerance or amount of vision in general.

In discussing the aetiology, Bishop and Benavides (1996) provide an in-depth summary of the genetic and structural aspects of a VI:

> A visual impairment occurs when any part of the optical system is defective, diseased, or malfunctions. If the visual impairment is the result of a defective part (or parts), it is usually present at

birth (congenital). These include missing parts (e.g., absence of an iris; absence of the eyes themselves), defective systems (e.g., dislocation of the lens; holes in the retina; drainage systems that are stopped up), and hereditary conditions (e.g., refractive errors due to eyeballs that are too short or too long; improperly shaped corneas; albinism). Diseases can be pre-natal (e.g., insult to the fetus in utero), at birth or post natal (e.g., damage shortly thereafter), or adventitious (acquired later) (e.g., diseases that develop gradually such as diabetes and some types of retinal diseases, cortical impairments due to traumatic brain injuries or tumors).

It is imperative that school psychologists assessing or assisting VI students have information regarding the diagnosed cause of the VI, the current visual acuities and the corrected vision level (i.e. with glasses, if they are worn). It should be noted that many VI students do not wear glasses as they do not assist in improving their acuities. Information regarding a student's VI could be obtained from the student's visiting teacher, their ophthalmologist or accessing what is contained on the FVA report.

There is also much general information available on the Internet particularly from associations devoted to particular types of VI (i.e. the Albinism Fellowship, Retinitis Pigmentosa Association). In Australia, *Vision Australia*'s website (http://www.visionaustralia.org/) is very useful and informative for parents and educators. The *Texas School for the Blind and Visually Impaired* (http://www.tsbvi.edu/) and the *Perkins School for the Blind* (http://www.perkins.org/) (Sacks, 2013) websites are very useful regarding a wide range of issues of the nature of VI, assessment of VI students and education of VI students. It is clearly advisable to obtain information from respected and official organisations.

VI and Multiple Disabilities

It is important that school psychologists be aware that many VI students have other impairments and therefore have multiple disabilities. Hyvärinen (2011) found that children with congenital visual impairment are more likely to have other developmental problems than children who become visually impaired later in life. According to Hyvärinen, 60–80 % of visually impaired children have at least one other impairment or chronic illness. Batshaw (2002) reports that children with multiple disabilities are more than 200 times more likely to also have a visual impairment than children in the general population. According to Batshaw, one third of children with partial sight have other developmental disabilities and that number doubles in children with blindness.

Approximately 75 % of visual impairments result from some problem with aspects of the central nervous system (Texas School for the Blind and Visually Impaired, n.d.). Examples include retinopathy of prematurity, optic atrophy, optic nerve hypoplasia (ONH) and traumatic brain injury. Approximately 25 % of visual impairments result from a 'mechanical' problem of the eye. Examples are glaucoma, congenital cataracts, colobomas, aniridia and progressive myopia. Some types of visual impairments include both problems with the central nervous system and mechanical problems of the eye (e.g. congenital rubella). The most frequent causes of visual impairment for children are retinopathy of prematurity, optic nerve hypoplasia and cortical visual impairment. In Victoria, from the students attending the Educational Vision Assessment Clinic (EVAC), it appears that optic nerve hypoplasia (ONH) is becoming one of the leading causes of blindness, as it is in other areas of the developed world. ONH is now the leading cause of blindness in the USA and Europe (Blohme, Bengtsson-Stigmar, & Tornqvist, 2000; Garcia-Filion & Borchert, 2013; Garcia-Filion, Fink, Geffner, & Borchert, 2010; Hatton, Schwietz, Boyer, & Fychwalski, 2007). ONH is associated with other disabilities such as intellectual impairment, autism spectrum disorder (ASD), pituitary gland damage and cerebral palsy (Borchert, n.d.).

Over the last 30 years in developed societies, including Australia, there have been excellent advances in medical procedures to improve the survival rate of children with severe brain insults. Therefore, the number of children with cortical vision impairment (CVI) has increased significantly (Webb & Dattani, 2010). Roman-Lantzy (2007) defines the vision impairment caused by such damage as follows:

> CVI is a term that may be used to describe a condition when a child or adult is visually unresponsive, but has a normal eye examination or an eye exam that cannot explain the individual's significant lack of visual function. (p. 5)

Students with CVI do not usually have damage to their eyes. With CVI, there is damage to the 'visual centres' of the brain. The eyes are functional; however, the brain is not properly interpreting what is being seen.

Students with a VI are also not precluded from other learning difficulties that may not be directly related to their VI, such as dyslexia or other learning difficulties. Many students, however, with VI have the cognitive ability to perform well at school, and some achieve high academic levels and attend college or university. Some of the students who the author has come into contact with are clearly gifted and excel at school.

Cognitive Assessment of Vision-Impaired Students

For a considerable number of the students with VI, the skills and knowledge that school psychologists possess will enable them to competently and accurately assess a student's cognitive ability. Brock (n.d.) and Russo (2003) offer a review of a number of factors and strategies that should be considered prior to and during the assessment of VI students and are described below.

Pre-assessment and Assessment Considerations

- Understand the vision loss type and degree (corrected):
  - Arrange to discuss the student with the visiting teacher if the child receives such service.
  - Request and review a current functional vision assessment if available.
  - The learning potential of many visually impaired students can be assessed using traditional techniques (with minor adaptations, e.g. enlarged materials, presentation of materials on a vertical slant).
  - What is the most recent vision assessment of the student? Does the student wear glasses or use visual aids and what are they?
  - Find out what size print the student prefers, and this will give an indication of their ability to cope with the item size.
  - Take some time to observe the student in the class and around the school to see how they operate. This helps to develop rapport but also gives you a feel how the child operates and makes decisions.
- Use modifications suggested by the functional vision assessment:
  - As indicated, adjust lighting. Some students function better in lower-light conditions (e.g. albinism, aniridia, achromatopsia and cone dystrophy); the FVA should report the appropriate lighting levels for a student. Discuss the lighting levels with the student being assessed!
  - Allow child to use (and adjust) visual aids.
  - Let the student bring the item as close as they like to their eyes. The best magnification is just to bring an item closer!
  - Present visual stimuli and materials within the student's known visual field.
  - Present visual stimuli at a vertical slant (e.g. standing easel stimuli books, allowing student to work or write on a slant board).
- Use standardised procedures, and when appropriate, modify and note.
  - If low vision is suspected to be affecting performance, then modify administration:
    Administer with stimulus items enlarged.
    Allow the use of magnifiers.
    Always note such modifications (practice effect may influence performance).
- Budget additional time for these assessments:
  - Seeing contributes to fatigue and may require rest breaks.
  - The testing may have to be split into multiple sessions because of fatigue or time needed to complete tasks.
  - Account for fatigue in your analysis of the results.
- Explain what is being done. For example, put away/take out test materials.

Effective Use of the Wechsler Scales with a VI Student

When modifying any part of a standardised instrument, it is best practice to include a cautionary/validity statement at the beginning of the report section. For example: 'the evaluator might add the following statement: Scores from this administration of the Wechsler Intelligence Scale for Children, Fifth Edition must be interpreted with caution. Because elements of the test were enlarged, they were not presented in accordance with standardised procedures. Obtained scores may not be a valid representation of the student's true cognitive ability'.

The standard tests that school psychologists normally use are particularly applicable to students who are in the partially sighted range (i.e. <6/18 to 6/60). The Wechsler Scales (i.e. the Wechsler Preschool and Primary Scale of Intelligence-IV (WPPSI-IV) and the Wechsler Intelligence Scale for Children-V (WISC-V) are very useful for the assessment of VI students even those who are in the legally blind range. The Verbal Comprehension Indices and Working Memory Indices of the Wechsler Scales are especially useful and applicable in assessing VI students who cannot see the 'visual' parts of these scales. An in-depth account of the considerations and applications of the Wechsler instruments with VI students across various areas of cognitive functioning is outlined below.

To begin, we encourage that even if a practitioner sees the term 'legally blind' for a student that they try and do as much of the Wechsler Scales as possible and encourage the students to 'give it a go'. Some students with quite low vision, particularly if they have good 'table top' vision (i.e. they see reasonably well what is on their table with only a small amount of magnification), can perform well on many subtests of the Wechsler Scales. Pictured items from the subtests are often large enough to see, and the contrast is good. Additionally, clinical observations of the student's behaviour and approach to standardised testing tasks should be recorded, as this often provides vital information about the student who may approach and complete tasks within other settings. It should be noted that N20 indicates sized print that would be font sized 20 in Times New Roman and, similarly, N80 would indicate a font size of 80.

Verbal Comprehension Index (VCI) and Subtests

The subtests of the VCI include Comprehension, Information, Similarities and Vocabulary, and though most of the items are presented auditorily, early items in these subtests include visual components. However, many VI students are able to see the pictures in these items, as they are quite large. Additionally, many of the items with pictures can be avoided if the student is old enough (i.e. 4:0 or older) and can attain two consecutive correct responses on the first two verbal items of these subtests.

Visual-Spatial Index (VSI) and Subtests

The subtests of the VSI include Block Design, Object Assembly (i.e. WPPSI-IV only) and Visual Puzzles (i.e. WISC-V only). The Block Design subtest is probably the easiest for VI students to see, as the blocks are at least N80 size and the contrast is excellent. In the experience of the authors, some students with very low vision can attempt and get results on the Block Design subtest. With that said, the ability of the student to move from completing items presented as three-dimensional models to those presented as two-dimensional pictures should be noted in clinical observations, as this often presents a challenge to many students, especially those with VI. The pictures in the puzzle pieces used in the Object Assembly subtest are also large and well contrasted.

Fluid Reasoning Index (FRI) and Subtests

The subtests of the FRI include Matrix Reasoning, Picture Concepts, Figure Weights (i.e. WISC-V

only) and Arithmetic (i.e. WISC-V only). The Picture Concepts subtest can be difficult if a student has colour perception difficulties (i.e. 'colour blind'); however, the size and contrast of the pictured items are reasonably good. The evaluator may tell the student what the pictures represent in this subtest, and the authors make this apparent to the students before starting the subtest. The Matrix Reasoning subtest can also be difficult for students with colour perception difficulties, as some of the items rely on colour discrimination for a correct answer. The size of the pictured items is also relatively small.

Working Memory Index (WMI) and Subtests

The subtests of the WMI include Picture Memory and Zoo Locations on the WPPSI-IV and Digit Span, Picture Span and Letter-Number Sequencing on the WISC-V. Both of the WPPSI-IV subtests assess visual memory span and working memory. The pictures in these subtests are fairly large, and the contrast is good. Similarly, the Picture Span subtests is an assessment of visual memory span and working memory, with pictured stimuli of fair size and good contrast. However, this subtest can be replaced with an alternative subtest. Both the Digit Span and Letter-Number Sequencing subtests assess auditory memory span and working memory.

Processing Speed Index (PSI) and Subtests

The subtests of the PSI include Cancellation, Bug Search and Animal Coding on the WPPSI-IV and Coding, Symbol Search and Cancellation on the WISC-V. The Coding and Symbol Search subtests can be particularly difficult for VI students, as Coding A, Coding B and Symbol Search items are all approximately N32. In the experience of the author, for students who need magnification above these levels, the author will enlarge the Coding and Symbol Search stimuli and response pages, as it is not believed to change the cognitive difficulty of the tests. Check with the student (i.e. show them the items on Coding and Symbol Search) before you start the test to see if they can see it, even if you have information regarding what size print they can see. The author has found that the most appropriate enlargement allows the Coding and Symbol Search subtest pages to be placed on a single A3 photocopy sheet (i.e. 145 % enlargement on a standard photocopier for Coding A and B, which will give an item size of approximately N48 for Coding A and N48 to N64 for Coding B; 160 % enlargement of the Symbol Search items is an item size of approximately N48 to N64). Similar enlargement strategies may be used in administration of the Bug Search and Cancellation subtests of the WPPSI-IV.

When photocopying materials from standardised tests, the publisher should be contacted for special permission to adapt the testing material. Also notable is that many standardised tests are now available in digital versions. In most cases, the images can't be enlarged on the iPad screen or tablet itself, but can be easily enlarged through sending the image from the iPad to a Smart Board or larger screen or through a data projector.

Assessment of Students with Very Little or No Useful Vision: The VCI and WMI of the WISC-V are especially useful with VI students with little to no useful vision, as most of the items in these subtests are presented auditorily. The same considerations for pictured items within these indices should be noted, as described previously. It is important to note, however, that many of the questions from the VCI relate to information that is visually based. Even very able blind students can easily miss concepts when they have not been able to experience them visually. For example, a blind student was told that an object was pizza shaped, and he commented, 'Oh it was triangular'. He had only ever been given single pieces of the pizza and as such assumed the triangular shape as opposed to circular shape. Caution should be used in interpretation of verbal subtest scores in general as some items rely on visual memory. An additional example where visual memory would warrant consideration for an item on a verbal subtest would be when a student is

asked how a lion and a tiger are alike. Both a child with and without vision might respond that both are part of the cat family, but the VI child might not indicate that they both have whiskers or otherwise comment on their appearances, which could be part of the standardised scoring criteria. It is suggested that the psychologist takes these differences into account along with scoring criteria which rely on the visual appearance of items when reporting scores and giving feedback to parents, teachers and students.

It is particularly important that information from standardised assessments of cognitive functioning be considered in conjunction with clinical observations of these students, discussions with their teachers and parents and other direct assessments of the functioning. Orientation and mobility (O&M) instructors can also be useful in ascertaining a student's abilities as the O&M ability of students relates closely to their cognitive ability.

Reporting Results of Assessment

In addition to the more traditional components of a psycho-educational evaluation (e.g. background, developmental and educational history, reason for referral), we offer some more specific recommendations for the school psychologist to consider in reporting the results of the assessment:

- IQ and index scores should be reported as a range.
- Cautionary statements (see above) should be included that describe the modifications and accommodations made to the standardised testing procedures and the impact of these modifications and accommodations on the student's ability to demonstrate cognitive functioning.
- Appropriate modifications to testing administration should be reported.
- Supplement conclusions with direct observation of the student.
- Base conclusions and recommendations on multiple sources of data.
- Limit the use of instruments and conclusions-based test materials, which focus upon visual perceptual or visual-spatial skills.
- Be careful with any conclusions based upon visual perceptual or visual-spatial skills.

Impact of VI on Academic Assessment

As discussed previously, conceptual knowledge that is generally learned through visual perception and input may be lacking in VI students. As such, these students may have difficulty responding to questions or discussing topics accurately. VI students may also have difficulty using pragmatic aspects of language appropriately. More specifically, they may have difficulty attending to conversational partners and perceiving the nonverbal communication (e.g. facial expressions, gestures, eye gaze) these partners use in conversation (Bradley-Johnson & Morgan, 2008).

With regard to reading, VI students should be exposed to books and literature as often as sighted students are. These books may have enlarged print or braille text, and real objects related to the story may also be presented to the student in order to allow them to experience literature through multiple modalities (Miller, 1985). All young students must also learn sound-symbol relationships to be able to decode words as needed to read. However, VI students that require braille text must learn 189 additional letter combinations beyond the alphabet that all students learn (Koenig & Holbrook, 2002). In order to facilitate this learning, flash cards have been found to be an effective strategy. It is also recommended that VI students using braille text read daily for considerable amounts of time and begin as early as possible in order to develop adequate reading speed. Braille typically takes two and a half times longer to read than regular text, so VI students with slow reading speeds will experience greater difficulty keeping pace with peers in the classroom (Trent & Truan, 1997). VI students using enlarged texts should be provided with appropriate optical devices and adapted visual

materials, given their individual needs. These students are generally as accurate as peers with regard to decoding and reading comprehension skills but continue to read at a slower rate. As such, reading materials should be presented with type size, font and contrast appropriate for the student in order to aid reading fluency (Lussenshop & Corn, 2002).

With regard to mathematical skills, research has shown that VI students with severe vision loss do not use their fingers to model numbers, count or solve arithmetic problems (Crollen, Mahe, Colligon, & Seron, 2011). Using their fingers helps students to understand numbers, especially with regard to combining and separating quantities. However, differences in mathematical ability between VI students and peers seem to dissipate between 8 and 11 years of age (Bradley-Johnson & Morgan, 2008).

The age of onset for VI students is particularly important for written language skills, as students who learned to write before losing vision are often able to continue writing on raised-line paper. However, a variety of writing devices are available to VI students, including braillewriters, slate and stylus tools, electronic notetakers, large print monitors and computer keyboards and speech-access software. Spelling skills appear to be largely unaffected in VI students (Bradley-Johnson & Morgan, 2008).

What Support Is Available to VI Students?

As one example of how VI students are supported in Australia, students in Victorian schools must be referred to the Educational Vision Assessment Clinic (EVAC) to establish their VI status and eligibility to receive assistance at school. At EVAC, the student's visual acuities are reassessed by a paediatric ophthalmologist. On the staff of EVAC are two education officers (both experienced teachers of VI students) and a psychologist who observe the assessment and discuss the child's needs with the parents or guardian of the student. The EVAC assessment may result in one or more of the following recommendations:

- Allocation of a visiting teacher-VI within the government and Catholic schools.
- Support from the Statewide Vision Resource Centre (SVRC).
- If students are within the 'legally blind' which is <6/60 acuity or a visual field of 10° or less, they are eligible for funding from the Program for Students with Disabilities within the Victorian Department of Education and Early Childhood Development. 'Legal blindness' is a term used by government departments in Australia to 'define a person whose degree of sight loss entitles them to special benefits' (Vision Australia, 2012). This funding is used to allow low-vision students to access the curriculum at school.
- All students in the VI range are subsequently given an FVA by an education officer. There is a report of this assessment, along with recommendations of how a student can be best supported at school. This report is made available to the prospective visiting teacher, the student's school and their parents.
- The psychologist can undertake a cognitive assessment of students seen at EVAC when appropriate to guide the provision of support to the VI student.
- Eligibility to attend the Support Skills Program (SSP) at the SVRC.

The SVRC provides the following assistance to VI students, their families and their teachers:

- Production of enlarged print, e-text and braille for VI students
- Provision of VI-/blind-specific technology on loan to students
- Professional development for teachers, aides and visiting teachers of VI students
- Provision of a programme for young students beginning braille, called 'Dot Power'

The Support Skills Program (SSP) brings VI students to the SVRC where they have the opportunity to meet other VI students. This is important as most VI students are the only student in their school with a VI, and attending the SSP reduces their sense of isolation and difference.

At the SSP, the students have specialist teaching in areas such as art, mathematics, music, social and self-advocacy skills, braille, orientation and mobility skills and the use of VI-specific technology.

In Australia, students with VI are generally educated in the mainstream school system ('inclusion model'), in either government or private schools (Morris & Sharma, 2011; Whitburn, 2014). Students with significant hearing, physical or cognitive impairments can be educated in school settings appropriate for these disabilities. For example, in South Australia, there is the South Australian School for Vision Impaired (SASVI), which is a specialist school for students with a vision impairment. The eligibility for attendance at the school is legal blindness on acuity or field restriction. They have a statewide service for students with less than 6/18 vision and a secondary school programme for VI students (South Australia School for Vision Impaired, 2016).

It is important for the school psychologist and all those involved in the education of VI students to make sure that each student has an expanded core curriculum (ECC) specific to their needs. The expanded core curriculum is in addition to the mainstream/standard curriculum in schools and may include (Statewide Vision Resource Centre, 2014):

- Compensatory or functional academic skills, including communication modes (e.g. auditory, e-text with enlargement and voice, large print)
- The use of access technology (e.g. braille, text-to-speech software)
- Visual efficiency skills (e.g. eccentric viewing programme, optical aids)
- Orientation and mobility (e.g. long cane and other mobility aids, public transport)
- Social interaction skills (e.g. eye contact, body position, friendship)
- Independent living skills (e.g. dressing, money use, eating skills)
- Recreation and leisure skills (e.g. VI-/blind-specific sports, using the Internet)
- Career education (e.g. career awareness, work experience, independent travel)
- Self-determination (e.g. accepting and declining help, self-advocacy, coping skills)

The school psychologist could have a significant role in the ECC for VI students particularly in the students' development of social skills and self-determination. In the experience of the authors, this may manifest as the need to teach VI students to effectively coordinate nonverbal communication skills (e.g. eye contact and gaze, body orientation, use of gestures) with verbal communication, the modelling and practice of coping skills to deal with feelings of exclusion or embarrassment amongst peers, and the fostering of self-advocacy skills to aid VI students in speaking up when modifications to the environment or educational materials are needed. Wolffe (2012, 2014) emphasises the need for mainstream curriculum skills and the types of skills developed in the expanded core curriculum if VI students are to cope with post-secondary education, get a job and participate in society.

Social Skill Development in VI Students

Students with VI can have delay and difficulty learning appropriate social skills. Most social skills are learned by repeated visual observation and connecting visual images through incidental learning (Miller, 2014; Russo, 2003). Miller (2014) estimates that '75 to 80% of everything we learn, we learn visually' and argues that VI students, at any level of vision, need direct and effective intervention and teaching to help them develop appropriate social skills. Many VI students also, in the authors' experience, need assistance with coping with being different. Many students suffer rejection, endless questions regarding their difference and teasing.

Huurre and Aro (2000) found that teenage boys with VI reported having less friends, spending less leisure time with friends and never having dated. Girls were found to have similar difficulties in social interactions. These difficulties appear to be more severe in children who are blind than those with low vision. These children reported

feeling lonely more often than their low-vision peers as well as having fewer friends. Clearly, this would affect a student's ability to 'fit in' amongst peers, leading to social and emotional difficulties into adulthood. In fact, the participants in the Huurre and Aro study reported that their visual impairments interfered with their social relationships. They felt that others' attitudes towards them are generally negative. Students who are visually impaired since birth appear to have more difficulty making friends and experiencing romantic attachments in general than those who became visually impaired after birth. Reasons for these difficulties might seem obvious, but some may be more profound than is realised.

School psychologists can assist these students with counselling and appropriate social skill training programmes. Miller (2014) and Sacks' (2013) presentations are a good starting point for teachers and psychologists to become aware of the ways to assist the social skill development of VI students. Wolffe (1998, 2012) has also made excellent contributions regarding the development of social skills, advocacy skills and skills to increase the independence of VI students.

Behaviour Difficulties and Interventions for Students with VI

Visual impairment can be seen as a risk factor for developing self-injurious behaviour and aggression, particularly in children at risk of developmental and intellectual disorders (Schroeder et al., 2014). In a review of the literature, Molloy, Rowe and Rowe (2011) found that children with visual impairment often exhibit manneristic or repetitive behaviours. These might include but are not necessarily limited to eye manipulation, body rocking, head movements, light gazing, hand flapping, head banging and staring. Children with other disorders might demonstrate similar behaviours, making it important to determine the source of the behaviour. For example, a child with body-rocking and eye-poking behaviour might appear to meet the criteria for autism spectrum disorder (ASD) when the behaviour should be attributed to VI. Conversely, practitioners must not presume that the manneristic behaviours are a result of VI because the behaviours could reflect a comorbid language disorder or emotional problem. Most importantly, particularly when children are engaging in self-injurious behaviours, these behaviours must be treated.

Because manneristic behaviours associated with VI can be maladaptive, unacceptable socially and physically harmful to the child, in the authors' experience, parents and teachers are usually highly motivated to intervene and follow through on recommendations made by the school psychologist. Many of these behaviours seem to be fulfilling a sensory need; therefore, it is important for psychologists to be mindful that the student might rely on the behaviour for sensory integration. Replacing the maladaptive behaviour with more adaptive responses to the environment would surely be met with most success.

Although parents and teachers are motivated to develop a plan, the authors have found that one major challenge in behavioural interventions is the fidelity with which the plan is applied. The best way to ensure fidelity is to do it yourself. This is nearly impossible and highly impractical in most school settings. Alternatively, the psychologist should visit the classroom and collect data often, maintaining open dialogue with teachers. The authors have found that teachers often abandon intervention plans because they find them not to be working, particularly when progress is slow. Showing teachers the progress measurement data might help. Assuring that their concerns about the plan are heard and addressed before teachers become discouraged about its usefulness is essential to success.

Behaviour intervention strategies used for sighted children can be used with VI students if modified to accommodate for the child's vision. For example, a daily report card might be used but raised symbols and braille are used instead of pictures or print. Young children and adolescents with visual impairments seem to have higher levels of emotional problems, conduct problems and hyperactivity/inattention than their sighted peers, but as they mature, the gap appears to narrow (Pinquart & Pfeiffer, 2014). Whether through

counselling and intervention or maturity and learning to cope with their disability, these children seem to overcome some of these obstacles, making it imperative that treatments be offered at a young age.

In summary, our experiences as school psychologists working with VI and blind students have taught us, above all, that there is much more to learn when you leave graduate school. Learning is a lifelong process, and because instruction on working with children with VI is limited in many school psychology graduate programmes, there is a lot to learn. This chapter scratches the surface, but each individual case is what expands one's knowledge. Just as with any other disability, each student with VI is different. Every student has specific needs, and assessments and lessons need to be adapted according to the individual child's level of visual impairment. Counselling goals may be different depending on vision. Behavioural interventions will differ based on each child's needs. These are skills that really cannot be taught; they must be experienced.

Test Yourself Quiz

1. What are the types of vision impairments? What are the criteria for each?
2. What is included in a functional vision assessment (FVA)? What are the results of the assessment useful for?
3. What are the causes and impact of visual impairment?
4. Why is it so important for the school psychologist to have information about the student's vision loss type and degree of loss (corrected) prior to completing a cognitive evaluation?
5. Discuss which measures must be followed when modifying standardised test materials. Include a discussion about how one can modify the materials and elements to be included in the report.

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School Psychological Practice for Students with Medical Issues

Kathy L. Bradley-Klug, Kendall Jeffries DeLoatche, and Grant Wheatley

Introduction

School psychologists play a critical role in supporting students with medical issues in the educational setting. Ranging from developing prevention programmes for students at risk for medical conditions to implementing and monitoring the effects of evidence-based interventions with those identified with an illness, school psychologists are essential to meeting the needs of these students. The purpose of this section is to discuss the variety of ways school psychologists can serve students with medical issues within the context of the educational system in Australia. In addition to the consideration of ethical and legal issues, the chapter offers suggestions for future practice and research.

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Global and Australian Prevalence

It is an unavoidable fact that unfortunately some children will become chronically ill and require hospitalisation. Global health estimates indicate almost 35 million children between the ages of 5 and 14 years suffered from a non-communicable disease in 2012 (World Health Organization, 2014). In Australia, 37 % of all youth aged 15 years or under had a diagnosis of a long-standing chronic health condition in 2008, including conditions such as hay fever and short-sightedness (Australian Bureau of Statistics, 2012). Though hospitalisation rates are lower for children compared to adults, there are still a substantial number of children who are hospitalised each year worldwide. For instance, research suggests the average children's acute care hospitals across the world provide care in more than 50,000 emergency department visits and more than 9000 surgeries annually (NACHRI, 2007).

Table 1 displays the most frequently reported chronic health conditions among Australian children ages 14 and under (Australian Institute of Health and Welfare, 2012). Additional chronic health conditions impacting Australian youth include cancer and Type 1 diabetes which are associated with yearly incidence rates of 14 and 22 per 100,000 children, respectively (Australian Institute of Health and Welfare, 2012).

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Table 1 Most frequently reported chronic health conditions among Australian children aged 14 and under

	Asthma	Hay fever and allergic rhinitis	Undefined allergies	Short sighted/ myopia	Long sighted/ hyperopia	Chronic sinusitis	Dermatitis and eczema
% of population	10 %	7 %	5 %	4 %	3.75 %	3 %	2.25 %

The future of paediatric chronic health conditions is predicted to be one of improving technology and shorter bed stays, allowing for improved prognosis for students with chronic health conditions and attendance at school (Shaw, Glaser, Stern, Sferdenschi, & McCabe, 2010). Many of these students will face physical, educational, and socio-emotional difficulties as a result of their chronic health condition (Power & Bradley-Klug, 2013). These students also add to the range of students that teachers care for in the ever diverse Australian classroom. A teacher's ability to provide for the academic, social, and emotional needs of these students is limited by the lack of training they receive to serve these students in the classroom and the support available, such as that provided by the school psychologist (Shiu, 2001). The role of the school psychologist is complex and requires a range of skills from assessment to organisational change. However, school psychologists need training in this area and to position themselves to support classroom and whole school practice in the management of students with a range of medical issues.

Educational and Socio-emotional Development

Chronic health conditions not only impact children's physical well-being but also affect their educational, behavioural, and social success in multiple settings (Grier & Bradley-Klug, 2011). The anxiety experienced by students with medical issues regarding the risk of poor academic performance is well founded, with evidence to suggest that chronic health conditions are associated with low grades (Taras & Potts-Datema, 2005b), with some health conditions having greater impact on academic outcomes than others (Kaffenberger, 2006; Taras & Potts-Datema, 2005a, 2005c). For example, the impact for some conditions such as cancer (Fasciano, 1996; Prevatt, Heffer, & Lowe, 2000) and asthma (Moonie, Sterling, Figgs, & Castro, 2006; Taras & Potts-Datema, 2005a) is now well established, and the need for planned school transition following hospitalisation is generally accepted for those student cohorts. For instance, planned school transitions after hospitalisation should include problem-solving that consists of assessing and selecting intervention strategies to address physical and/or emotional symptoms at school (Jantz, Davies, & Bigler, 2014). In addition, children with chronic health conditions experience low attendance at schools, loss of instructional time, and the possibility of falling behind in academic achievement (Coyne, 2006). The side effects of treatments may also cause adverse cognitive effects, which in turn affect educational progress (Shiu, 2001). Furthermore, adolescents with chronic health conditions are less likely than their healthy peers to graduate from high school and college (Maslow, Haydon, McRee, Ford, & Halpern, 2011).

Within the socio-emotional domain, students with medical issues report being self-conscious regarding their conditions (Sexson & Madan-Swain, 1995) and are at risk of developing emotional disorders such as anxiety or depression (Boekaerts & Roder, 1999; Power & Bradley-Klug, 2013). Students with chronic health conditions also may experience loss of contact with peers and long-term peer difficulties, such as peer rejection (Coyne, 2006; Shiu, 2001). These medical issues also result in stressors on family relationships as parents struggle with managing the multiple needs of their child, as well as the financial impact of the medical condition (Robinson, Gerhardt, Vannatta, & Noll, 2009). Within the classroom, students with chronic health conditions may exhibit off-task and disruptive behaviours that negatively impact academic

achievement (Forrest, Bevans, Riley, Crespo, & Louis, 2011). This again points to the important role school psychologists can play in supporting these students, their teachers, and whole school practice particularly to ensure students' socio-emotional development.

Role of the School Psychologist

The school psychologist needs to be aware of the services available to a student with a medical issue. School psychologists in Australia have some access to nurses in schools, and all states and territories have schools situated within most hospitals. The role of the school nurse and hospital schools varies greatly across Australia. Being linked closely to both the education and health systems means that hospital schools are affected by changes in either realm, which in most contexts requires almost constant re-evaluation of the role and the services provided. The school psychologist should familiarise themselves with the support available from these government services and the gaps in service. For example, only a few hospital schools in Australia and New Zealand provide tuition at home to students when transitioning back to school after prolonged hospitalisation (Hopkins, 2014). School psychologists should also familiarise themselves with the relevant nongovernment agencies operating in their region. The availability of these nongovernment services will vary; however, there are national programmes such as the Ronald McDonald Learning Program that provide consistent coverage for students with long-term medical issues (see http://learningprogram.rmhc.org.au).

Depending on the training programme attended and any additional professional development activities in which an individual may have engaged, school psychologists will likely vary greatly in their knowledge and understanding of paediatric chronic health issues. When presented with a student with a specific chronic health condition, it is recommended that school psychologists seek information regarding that condition to learn about such issues as the disease process, types of treatments and possible side effects, impact of the health condition on cognitive and social-emotional outcomes, and any other unique outcomes related to the condition (see McCabe & Shaw, 2010; Roberts & Steele, 2009). School psychologists also would benefit from knowledge of what are often referred to as the cross-cutting issues that affect children and youth with chronic health conditions (Roberts & Steele, 2009). In other words, regardless of the actual diagnosis, students with physical health conditions often struggle with similar issues such as treatment adherence, pain management, distress regarding medical procedures, and stress related to the disease course.

One of the most empirically supported interventions used to treat individuals with chronic health conditions that can be applied to these cross-cutting issues is cognitive-behavioural therapy (CBT; Christner, Stewart, & Freeman, 2007; Power & Werba, 2006). School psychologists trained in CBT can use these strategies to address both mental health and medical management concerns. For example, a school psychologist could teach a student relaxation strategies and coping statements to assist with recurrent pain (Power & DeRosa, 2012) or use motivational interviewing strategies coupled with training students in self-management to improve adherence to prescribed treatments (La Greca & Mackey, 2009).

Farrell and Harris (2003) reported on the provision of effective services for students with medical issues and identified five themes for best practice in the programmes they examined. These themes can be used to guide the role of a school psychologist when supporting students with medical issues.

Mainstream ownership. Many students with severe medical issues experience long or frequent periods in the hospital or convalescing at home. During a student's time away from school, it is important that the student stays emotionally connected with the school in which they are enrolled, such as through receiving encouragement from teachers and classmates via letters, video chat, or other meaningful communication strategies. The school psychologist can play a key role in facilitating such connection. Case

conferences as convened by the school should be used to define the role of the school psychologist and others in maintaining such connections.

Partnership and collaboration. Whether the school psychologist is the case manager of a student with a medical issue or not, ensuring that the school utilises best practice by maintaining regular communication between the school, caregivers, health professionals, and any alternative education service is in the best interest of the student. School psychologists trained in consultation, problem-solving, and interdisciplinary communication have the skill set to serve as liaisons across systems.

Flexibility. Ensuring that the student has, for example, a flexible timetable that allows for part-time attendance if necessary and frequently explained absences will mean the student feels included and has a seamless transition between school, home, and hospital. An example of this flexibility is the *Return to Learn* protocol used for students who incurred a concussion (Halstead et al., 2013). Students are gradually transitioned back to school through gradual steps that might involve at first staying at school for only 1 or 2 h, to a half day, to a full day. Throughout the transition the school psychologist can ensure that the student is carefully monitored to ensure success.

Responsiveness. A key role of the school psychologist can be the organising or facilitating of appropriate professional learning for the school staff regarding any necessary medication, physical procedure, or emergency plans so there is an understanding school environment. For example, for a student with Type 1 diabetes, the role of the school psychologist may include educating school staff about this health condition (e.g. signs, symptoms, treatment) and developing a health plan that details the roles and responsibilities of everyone involved with that student.

Clarity. It is vital that the school psychologist help develop school policies and procedures that consider issues such as staff training, communication to staff (including relief and duty teachers), and allowances for extracurricular activities and be involved in the development of individual healthcare plans for students that they case manage. The school psychologist plays an integral role in developing prevention and early intervention plans and curriculum to address at-risk populations, such as working with nutritionists to offer healthy school meals and other wellness programmes.

Ethical and Legal Issues

While Australia is certainly not alone in facing the challenges of inclusion of a wide range of students, including those students with medical issues, it is doing so without the benefit of strong federal, and in some cases state, legislation on this issue (Forlin, 2001; Forlin & Forlin, 1998; Zundans, 2006). In the United Kingdom, the Department for Education (2014) provides specific guidance under section 100 of the Children and Families Act 2014 regarding "supporting pupils at school with medical issues". This document articulates the rights of the student with medical issues to full access to education and the responsibility of schools to support such students and consult with health professionals, students, and caregivers. The Hospital Organisation of Pedagogues in Europe (HOPE) adopted a European Charter for the Educational Care of Sick Children and Adolescents in Hospital and Home Tuition in 2000 to ensure the right to education for hospitalised children. Article 28 of the United Nations Convention on Economic, Social and Cultural Rights discusses that the right to education should not be limited to delivery within schools and that, as an example, education should be continued during a hospital stay.

The right to medical confidentiality is a major consideration in the care for students with medical issues. Consent must be gained for any communication across agencies regarding a student's condition. Such consent is usually provided by the primary caregiver; however, as in the normal patient population, some declare *mature minor* status in regard to their medical information. This situation can provide complication for education systems in Australia as *mature minor* status is not similarly recognised.

In the absence of strong legislation, teachers in Australia concerned about students who have a chronic health condition often voice the issue of "duty of care". The concern voiced anecdotally is that the teacher will be liable upon a claim of negligence. To establish negligence the person needs to show that there was a duty of care that has been breached, which caused foreseeable damage to be suffered. For teachers there is a clear duty of care for students in their charge, but what constitutes a "breach" of that duty of care is unclear. As usual outcomes of cases provide clarity, a number of cases have been brought in terms of discrimination in the case of students with medical issues, such as the Travers versus State of NSW (Federal Court of Australia, 2000). In this case the court found in favour of the family of a student with spina bifida as the school had failed to provide adequate access to disabled toileting facilities. School psychologists can help address the concerns of teachers by providing appropriate professional learning. Additionally, school psychologists, in conjunction with school principals, could facilitate access to legal advice regarding case information and the opportunity to discuss the actual meaning of terms such as "duty of care" and "negligence". Further, school psychologists could prompt teachers to pose questions of their own teaching practice such as: (1) Is the activity suitable to the student's medical condition? (2) Has the student been trained to do the activity properly given their medical condition? Such questions would be useful.

Future Directions for Practice and Research

An area of future direction for the education of students with medical issues is the greater utilisation of new digital technologies to connect students when they are enrolled in school to allow classroom and social connections with peers. Mobile technologies are being quickly adopted around the world to facilitate these types of connections (New Media Consortium, 2012). They enable easy access to information, social networking, and are ideal for sharing of content and experiences. Such technology must be more than a replacement tool but used as part of a redefinition of learning as defined in the SAMR model (Puentedura, 2012). In addition, models of virtual teaching must be explored as the outcomes of such innovation will be liberating for students who are socially isolated and experiencing disrupted schooling, such as those with medical issues. Technology, such as telehealth, will also help improve communication and collaboration between health professionals and schools (Bradley-Klug et al., 2013).

Investigation into outcomes of effective service on the educational and health implications for students with medical issues is a necessary area for research. Access to education is recognised as one of the strongest determinants of health outcomes throughout the lifespan (Viner et al., 2012). Outside of the family environment, safe and supportive schools, together with positive and supportive peers, are crucial to helping young people develop to their full potential and attain the best health in the transition to adulthood. Prolonged absence from school is associated with poorer outcomes in adulthood, including lower levels of further training, education, and employment, and increased risk of mental health disorders and chronic illness. Consistent with what Bessell (2001) reported at the time, research continues to be scant with respect to demonstrating the effectiveness and significance of services once they are put in place.

Finally, the development of "comprehensive service" schools or "integrated healthcare" models that have, for example, health clinics located in the school offers a potentially beneficial option for students with chronic health conditions. Such integrated service delivery can range from strong collaboration with the agencies retaining specialist roles to fully integrated models with governance, administration, and practice (Press, Sumsion, & Wong, 2010). Models need to be designed in partnership with local communities and with services adapted to address locally identified personal, family, and community needs (Moore, 2008). Importantly, for school psychologists working with students with medical issues within such models, the use of language, adoption of common practice frameworks, flexibility, and creativity will be key aspects of future practice (Press et al., 2010).

Specific Examples of Research to Guide Practice and Suggested Further Reading

Although the importance of systems-level interdisciplinary communication and collaboration is believed to be of critical importance to the positive outcomes for children and youth with chronic health conditions, professionals do not typically engage in partnerships on a regular basis. A survey of members of the American Academy of Pediatrics found that they perceived the role of school psychologists as very traditional, viewing school psychologists as having little knowledge or applied experience in working with individuals with medical conditions (Bradley-Klug, Sundman, Nadeau, Cunningham, & Ogg, 2010). The majority of these paediatricians did not seek contact with a school psychologist when working with a student with a medical condition. Additionally, paediatricians identified significant barriers to working with educators, including lack of time, finding school personnel inaccessible, lack of reimbursement, and uncertainty as to who to contact at the school. Similarly, a survey of school psychologists conducted in the United States identified similar barriers to communication with medical professionals, such as limited time and inaccessibility of these professionals. School psychologists also listed differing views on child development and the need to obtain parent permission to communicate information across systems as additional barriers (Bradley-Klug et al., 2013). With similar communication and collaboration issues likely to be prevalent in Australia, in order for systems-level partnerships to be effective, there are some distinct strategies that need to be enacted such as the development of communication protocols, training in chronic health conditions, and reinforcement of the importance of collaborative practice.

Another important area of research related to students with medical issues is health literacy. Defined as one's understanding of their health condition and the ability to use that understanding to make everyday decisions to effectively manage one's health (Kickbusch, 2008), health literacy is an area that needs to be further explored in children and youth. Studies have shown that adults with lower levels of health literacy tend to have fewer positive health outcomes than those with higher levels of health literacy (DeWalt, Berkman, Sheridan, Lohr, & Pignone, 2004). However, there is little research on this topic in youth. Given that adolescents are often involved in their healthcare and make decisions with regard to treatment adherence, this is a critical age group to target for health literacy (Manganello, 2008). Specifically, measures to assess health literacy in adolescents need to be developed as well as interventions targeted to increase these skills in students with medical issues. Relatedly, assessment of health-related quality of life in youth and adolescents may lead to the development of strategies to support the perceived well-being of these individuals (Power & Bradley-Klug, 2014). Interventions aimed at building coping skills and resilience may help to support the positive outcomes of students with medical issues.

Conclusion

The role of the school psychologist working with students with medical issues is multi-faceted. School psychologists need to be aware of students' needs and the resources available to support them, both within and external to the school setting. Developing an understanding of the cross-cutting issues that affect these students enables school psychologists to develop prevention and intervention plans for a variety of medical conditions. Systems-level partnerships are of critical importance and school psychologists have the skills and knowledge to initiate and maintain this interdisciplinary collaboration.

Test Yourself Quiz

1. From a psychological perspective, what should teachers know about common needs of students with chronic health conditions and who may be missing school regularly to attend medical appointments?

2. What role can school psychologists play in supporting students with chronic health conditions?
3. What can school psychologists do to ensure open communication exists between the school and health professionals regarding the educational needs of students with medical issues?

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Measuring Outcomes in Schools

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Measuring Outcomes in the Schools

In light of their training in psychometrics, evaluation, and statistical analysis, school psychologists may have the most knowledge, of any professional in the school setting, of evaluating the impact of educational and psychotherapeutic interventions (Fagan & Wise, 2000; National Association of School Psychologists; NSAP, 2010). School settings provide a natural opportunity for important, real-world, and meaningful data that will enhance the delivery of interventions and decision-making as to who benefits from what intervention under what conditions. In this chapter, we provide detailed guidelines for strategies for the working school psychologist to measure system-level change, classroom-wide change, and individual change. We first present various methodologies for collecting data to evaluate change at all levels of intervention implementation. Next, we describe in detail straightforward approaches to calculate the effectiveness of an intervention. Throughout the chapter, we also review the practical barriers that may exist in the Australian educational system that challenge the collection of outcome data, and we present potential strategies to help manage these barriers.

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Overview of Data Collection and Measuring Outcomes

School psychologists provide a wide range of services to children and youth, parents, and educators. Services provided by school psychologists include but are not limited to academic, behavioral, and psychological assessment and interventions for children and youth; collaboration and consultation with educators, parents, and other professionals; or development of crisis management procedures (Australian Psychological Society; APS, 2013). Therefore, school psychologists may intervene at multiple levels with different targets for change. For example, they may consult with the school administrative staff to develop a school-wide policy to reduce the frequency of bullying within the school and implement a system-wide approach to promote appropriate behavior. School psychologists may also work with classroom teachers on developing class-wide strategies that target specific academic or behavioral concerns for groups of students or perhaps the whole class. For example, the school psychologist and educator may collaborate

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to improve early literacy skills for students in an entire class and develop teachers' instructional and managerial skills to support this intervention. Thus, it is important that school psychologists would continuously gather data to monitor and evaluate the effectiveness of the intervention. Finally, school psychologists may also work on the individual student level with parents and/or teachers to collect data to understand a student's abilities and challenges and then use these data to develop an intervention plan and to evaluate the outcome of the intervention. An example of this option would be developing an intervention for a student who is disruptive in class. The school psychologist may conduct a functional analysis to understand the purpose (e.g., attention) of the problem behavior and then work with the parent and teacher on strategies to change that behavior while continuing to collect data throughout the intervention.

There is much more to providing services to children and youth than just selection of an intervention and its implementation. Providing services in school settings also involves program evaluation (NASP, 2010). Program evaluation refers to the systematic analysis and interpretation of data to evaluate the effectiveness of a specific intervention. Two aspects of program evaluation merit further discussion. One aspect refers to data collection. Data collection is the process of gathering information to document and measure outcomes to evaluate a student's progress or lack of progress on a specific behavior, thus allowing the school psychologist to monitor a student's acquisition during intervention (Riley-Tillman & Burns, 2009). Data collection has three purposes. First, it establishes a basis for developing individual, classroom, or school-wide goals at the onset of the intervention program. Second, it provides information on a student, class, or school's level of performance on the target behavior before and after the intervention has been implemented. Third, it allows the school psychologist to determine whether an intervention was successful, thus answering questions such as "How well does an intervention work?" or "Does the student learn the skill or behavior being taught?" (NASP, 2010).

The Importance of Measuring Outcomes and the Role of the School Psychologist

When delivering services in school settings, school psychologists must practice within the scope of their profession and meet the required standards of professional competence. According to the NASP *Model for Comprehensive and Integrated School Psychological Services* (NASP, 2010) domain of data-based decision and accountability, school psychologists should practice within the context of a problem-solving framework, systematically collect data to understand students' abilities and challenges, and use such data on an ongoing basis to evaluate and monitor the effectiveness of school-based interventions as well as the school psychologist's services. Moreover, school psychologists must acquire theoretical knowledge and demonstrate technical skills that enable them to address complex student needs while providing comprehensive and effective services that have direct and measurable impact (Gibbons & Brown, 2014).

When assessing the impact of services provided, school psychologists should follow several evaluation guidelines: (a) the use of multiple measures, including at least one measure of impact on student outcomes; (b) the use of valid and reliable measures of student outcomes; (c) the use of measures that are sensitive to documenting different levels of proficiency; and (d) systems that are linked to professional development and improvement (Waldron & Prus, 2006). In addition, they need to gather information from a multitude of sources including informant ratings from each member of the evaluation team and other individuals who can provide relevant information on a student's current level of functioning on the behavior of interest. School psychologists will also collect direct observation data in the student's natural environment to verify the information gathered through informant ratings and to obtain a better understanding of the student's behavior targeted for intervention as well as other environmental variables that may influence his or her behavior (Gibbons & Brown, 2014). Throughout

the evaluation process, school psychologists must select assessment tools and implement evaluation practices that have supporting empirical evidence documenting their effectiveness at the individual, group, or systems levels (NASP, 2010).

All Australian schools have a responsibility, under the Disability Discrimination Act (1992) and Disability Standards for Education (2005), to ensure that students with disabilities are given equal rights to access and participate in education and to make *reasonable* adjustments to allow that participation. However, this is in contrast to the United States, for example, where there is specific legislation that makes school districts legally accountable for not only the *success* of the whole school but especially children who are at risk, which is encapsulated in the No Child Left Behind Act (NCLB, 2001). Aligned with the reauthorization of the Individuals with Disabilities Education Act (IDEA, 2004), there is an emphasis in schools on implementing preventive practices and linking assessment to intervention to promote academic and behavioral success for all students. A preventive intervention designed to address students' academic needs is Response to Intervention (RTI). RTI is a multi-tiered model that is used to evaluate psychoeducational services within core instruction (primary prevention; Tier 1), supplemental instruction (secondary prevention; Tier 2), and intensive instruction (tertiary prevention; Tier 3). RTI is noticeably different than the "wait-to-fail" model often seen in the traditional special education system (Walker & Shinn, 2010).

RTI is frequently discussed as a multi-tiered system of supports (MTSS) for matching instruction and intervention to student needs (Batsche et al., 2005). This conceptualization shifts more focus to using data to inform prevention and early intervention activities, rather than simply identifying students who may be eligible for special education (Castillo, 2014). The application of data-based decision criteria to school-wide screening and regular monitoring of at-risk students is needed as part of the RTI process to help ensure that those in need are provided the appropriate services to increase the likelihood of their academic success (Glover & DiPerna, 2007). School psychologists' knowledge and skills in research and program evaluation make them ideal candidates to both advocate for and support efforts to engage in program evaluations (Castillo, 2014).

The expertise that school psychologists have in assessment, data collection and interpretation, and evidence-based practices is a critical factor in ensuring that all aspects of measuring student performance and evaluating outcomes are executed appropriately by educators and other professionals involved in a student's education. The main purpose of measuring student outcomes is to promote student success. Thus, implementing screening measures and continuously evaluating progress and outcome data are critical aspects in the early identification, prevention, and intervention to address academic and behavioral problems displayed by students in school settings.

Practical Considerations for Evaluating Outcomes Assessment

Measuring outcomes, evaluating the effectiveness of interventions, and making data-based programmatic decisions to address students' academic and social behavior in school settings are high priority in many countries worldwide including Australia. Specifically, the importance of gathering and analyzing data within the school is reflected in the Australian Education Act 2013: "Support will be provided to schools to find ways to improve continuously by: (a) analysing and applying data on the educational outcomes of school students (including outcomes relating to the academic performance, attendance, behaviour and well-being of school students); and (b) making schools more accountable to the community in relation to their performance and the performance of their school students" (Part 1, Section 3). One way of doing this is through the introduction of the National Assessment Program—Literacy and Numeracy (NAPLAN), which was implemented in Australia in 2008(http://www.nap.edu.au). It is an annual national assessment for all students in years 3, 5, 7, and 9.

NAPLAN's data have been acclaimed to providing the basis for standardized national monitoring of student achievement in Australia. All students in these year levels are expected to participate in tests in literacy and numeracy that are developed over time through the school curriculum. KidsMatter is an initiative of mental health promotion, prevention, and early intervention initiative set in Australian primary schools and in early childhood education and care services (Slee et al., 2009). KidsMatter is supported by a strong evidence base and is a comprehensive model for improving mental health in schools that involves the entire school community. By incorporating components of the Collaborative for Academic, Social, and Emotional Learning program (CASEL, www.casel.org), it targets the mental health and well-being of all students in primary schools through promoting a positive school environment and providing education on social and emotional skills for life.

In this section of the chapter, we first discuss practical challenges encountered by school psychologists when designing and implementing evaluations within the school setting. Next, we present several guidelines to be considered by school psychologists when selecting assessment tools to evaluate student outcomes and the effectiveness of specific interventions. We end by describing how school psychologists should select effective interventions to address academic and social behaviors and by discussing several aspects related to intervention implementation in school settings.

Timing of Outcomes Assessment

Although school settings and the role of school psychologists involve a significant amount of data collection to assist in educational placement and recommendations, the school culture, from our experience, appears more reticent to allow for gathering of data to evaluate the effectiveness of interventions on the individual, classroom, or school-wide level. We have had educators question *why* we need data and whether we can just "see if things improve." This issue may be one of the challenges that the school psychologist will encounter—to establish a culture of expectation for data collection to evaluate the effectiveness of interventions. This concern may require them to communicate the importance of data collection and also communicate that data are not being collected to evaluate *their* effectiveness in the classroom or as a school administrator. Developing a respectful and collaborative relationship with school educators, support staff, and administrators can increase the likelihood of "buy in" when it comes to gathering data to evaluate the effectiveness of an intervention. One way that we may work toward overcoming that school cultural barrier is helping educators and administrators recognize the benefits for not just the student but for the educator and for the school as a whole. By gathering data and having the school-based professionals be part of this process, it may help educators believe that they are valued not just as sources of information about the students but also as experts on the student and what may work within the classroom or school context.

When a collaborative relationship with school staff has been established, it is important to develop an assessment strategy to clarify goals and measure intervention outcomes. This process may vary depending upon the method or source of assessment as well as the characteristics of the reporters. Cappella, Massetti, and Yampolsky (2009) identify three strategies that would be beneficial to consider with regard to outcomes assessment: (a) timing of assessment, (b) method of source of assessment, and (c) level of outcomes assessed. We briefly discuss these strategies as they relate to practical issues in gathering data within the context of developing and measuring outcomes within the school. It is important to consider *when* assessment is going to occur and *how frequently*. Depending upon the identified goals, assessment could be evaluated via a checklist or brief rating scale or perhaps a more intensive observational approach is warranted. Further, our experience in schools has led us to conclude that it is important that we try to balance the desire for multiple data assessments with an understanding that an educator or parent who is asked to complete a rating scale too

frequently may resist doing so. That is, it may be better to choose less frequent ratings of student academic or student behavior if it is going to increase the likelihood of teachers continuing to be a source of measurement. It is important for the school psychologist to discuss the practicality of data collection with the educator and if they believe that it would be an acceptable approach that would provide meaningful data to evaluate the success of the intervention. This strategy may further engage educators in the process and reinforce that they are an active part of the decision-making and as such will be more likely to continue to be a part of data collection.

With regard to the method or source of the assessment, it really depends upon what the specific objectives of the intervention are as well as the source of the data. For example, if a school-wide program is being developed to increase school attendance, data could be gathered from the administrative offices. If a new reading curriculum is introduced in the classroom, data could be gathered from standardized or end-of-semester reading examinations. If the intervention is geared toward promoting the social skills development of an individual student, data could be gathered from behavioral observations, student report, and/or teacher or parent ratings. Ultimately, the decision for what method of assessment will be utilized will need to tie both the objectives of the evaluation along with the practical nature of data collection together.

Finally, it is important to consider the desired level of outcomes assessed and the goals of the intervention. This consideration would be important for establishment at the beginning as to what level of desired change or outcome is expected and at what point and to discuss the likelihood of the intervention leading to the desired outcome within a specific time frame. The school psychologist, educators, and school administrators may wish to discuss if they are looking at change at the individual level toward more adaptive functioning in the individual or change at the class or school level with specific goals set (e.g., 70 % of the students will be reading at or above grade level). Data collection prior to implementation of the intervention is key at this stage, as it is important to ascertain if the goals are realistic and, even if met, would they have a noticeable improvement in classroom behavior. Watson and Watson (2009) offer an example of this consideration: if a student was referred for intervention because he/she was out of her seat 63 % of the time, but comparison data shows that her peers are out of their seats 57 % of the time, the focus of the intervention may shift from the individual to a more large-scale intervention. Similarly, it is important to consider current and desired level of performance of student academic functioning and behavior at the classroom and school-wide level in comparison with local norms and standardized comparisons and what the desired and realistic effect of the intervention would be. As such, it is important for collection of baseline data for the referred and comparison students at the individual, classroom, or school-wide level and continuous monitoring throughout the intervention. As the number of assessments increases, so does the reliability and validity about the conclusion drawn from the data (Watson & Watson, 2009).

Choosing Outcomes Assessments

In addition to considering some of the practical issues described above, there are a number of important characteristics that warrant consideration in choosing measures to evaluate the effectiveness of an intervention. Rating scales completed by the educator, the parent, and the student continue to be used both within traditional models of assessment and for evaluating the effectiveness of these scales in response to the implementation of an intervention.

These behavior rating scales are standardized measures consisting of a list of behavioral descriptions. The rater is asked to indicate the degree to which the behavior is present. These rating scales may represent a wide range of student behavioral constructs with standard scores on each construct for comparison purposes. The information collected through rating scales may assist school psychologists in educational and diagnostic decision-making (Merrell, 2008; Shapiro & Heick, 2004) as well as in monitoring

the effectiveness of an intervention. Behavior rating scales have improved in their psychometric characteristics and, therefore, may provide a significant amount of data about student behavior in a fairly efficient manner. Space prohibits a detailed discussion of the best practices in use of the selection of third-party behavior rating scale approaches, and the reader is referred to Campbell and Hammond (2014) and McConaughy and Ritter (2008) for a more complete review.

Nevertheless, we think that it is important to highlight some specific aspects that may warrant consideration for the school psychologist when selecting rating scales for use in evaluation of an individual, classroom, or school-wide intervention. First, rating scales are considered to be an indirect method of data collection that are highly inferential in nature. That is, the information provided by a rater on a rating scale may be limited by their exposure to the student performing the behavior and possibly their personal beliefs about the behavior and the student. As such, these rating scales may be somewhat subjective in nature and more easily influenced by rater variables and motivation. Second, rating scales are varied in terms of their focus and their breadth. That is, some scales are more broad based and include items that cover a range of emotional, behavioral, or social constructs, while others are more narrowly focused on specific areas. The choice of which rating scale to use will be based on the purpose of the evaluation. For implementation of a school-wide mental health program, it might be advantageous to have more of a broadband measure that assesses a number of clinical constructs. Alternatively, for a targeted intervention, such as a program to reduce anxiety among students, it may be important to have more of a narrow band measure that focuses on that specific aspect of state and provides more in-depth detail.

A more direct and less inferential approach to data collection, but admittedly one that requires more effort, is that of behavioral observation. Conducting classroom observations can be a particularly effective way to determine whether interventions implemented at the individual, classroom, and school-wide levels have been effective. The challenges here may come back to deciding *what* should be measured and *when* it should be observed. When considering using observations to evaluate the effectiveness of the intervention, it is important to make sure that a relevant sampling of behavior has been conducted. This issue may be particularly important at the systems-wide level, as observations of specific groups of students may not be reflective of the impact of the system-wide intervention on the student body as a whole. As such, we recommend observations at the individual level or the classroom level rather than the system level.

When conducting observations as part of an evaluative process to measure the effectiveness of an intervention, it is important for the school psychologist to recognize that there are practical challenges associated with this approach. To begin, observations may warrant more time and effort on behalf of the school psychologist and/or educational staff to develop a reliable, valid, and easy to record methodology of an objectively defined student behavior. Staff resistance to observation recording in the classroom would be an important variable to consider and address. Second, it is important to make sure that what is being observed is related to the goal of the intervention and is meaningful in nature. As an example, while collecting data on out-of-seat behavior among the students might be easily defined and gathered, it does not provide data as to the social context of the classroom. That is, perhaps there are environmental variables (e.g., peer behavior, academic content, or teacher classroom management) that may be impacting upon this behavior. Rather, it may be more important to gather data about the interaction between the student, their peers, and the teacher regarding the behavior in a way that is manageable for data collection purposes to guide intervention selection. For example, Hamre and Pianta (2007) proposed a model to guide classroom observations, the *Classroom Assessment Scoring System* (CLASS), that may help guide school psychologists in choosing what aspects of the classroom interaction relate to student behavior that they may wish to focus upon. Finally, when conducting classroom observations, it may be important to decide whether to focus on the frequency or the quality of the

observed behaviors (Hamre, Pianta, & Chomat-Mooney, 2009). For an in-depth review of behavioral observations, the reader is referred to Volpe, DiPerna, Hintze, and Shapiro (2005).

Intervention Implementation

When selecting an intervention that is to be implemented in the school, there are a number of variables to consider. First, and probably foremost, is that the school psychologist considers the evidence for a specific intervention as it relates to the goals and objectives for the student, classroom, and school. Historically, one of the challenges for this concern is due to the fact that much of the early school psychology research was not developed and conducted by school psychologists in the school setting. As such it is important for the school psychologist to consider the ability to translate the evidence-based interventions (EBIs) that may not have been developed in schools into school-based practice. More specifically, they may wish to consider to what degree would this intervention work within their school and how would it work toward meeting the goals of improving the student, classroom, and school. A number of resources for EBIS in the school exist (see ebi.missouri.edu; http://effectivechildtherapy.com; http://faculty.uca.edu/ronkb/bramlett/empirical_interventions.htm; http://ies.ed.gov/ncee/wwc; http://www.interventioncentral.org). School psychologists may wish to consider whether to use one of many optional interventions included on these sites and modify an existing intervention that has been in place in the school setting currently, as well as the practicality of implementing this intervention. When selecting an intervention, the school psychologist should also consider how acceptable the intervention would be to those who most likely are in the position to implement it: educators, paraprofessionals, and school administrators. Consideration of the degree of training involved prior to implementing the intervention as well as the fact that EBIs not be equally effective for all cultural groups are both additional variables for the school psychologist to consider the population with which the intervention will be delivered.

Intervention Integrity and Outcomes Assessment

One of the most important and challenging variables that relates to evaluating the effectiveness of an intervention is to determine if it was implemented as planned. This concept is often called treatment integrity (Berryhill & Prinz, 2003; Durlak & Dupre, 2008; Martens & McIntyre, 2009). As the interventions adopted require school staff to perform certain behaviors at specific times with individual students, small groups or classes, and entire schools, it is important that the nature and timing of educator behavior is examined as it relates to the impact on student behavior (Martens & McIntyre, 2009). Failure to do so limits the degree of confidence as to whether it was the intervention that led to the desired student outcome or some other variable. Cordray and Pion (2006) posit that treatment effects should only be described relative to the manner in which the treatment was delivered and received. Further, treatment integrity has been closely linked to treatment outcome (Sanetti & Kratochwill, 2014; Sheridan, Swanger-Gagne, Welch, Kwon, & Garbacz, 2009; Vollmer, Roane, Ringdahl, & Marcus, 1999; Wilder, Atwell, & Wine, 2006). Higher levels of treatment integrity are associated with better client outcomes and suggest that subsequent exposure to lower levels of treatment integrity can compromise intervention effects (Vollmer et al., 1999). In addition, assessing treatment integrity can help identify those aspects of a plan that were difficult to implement, focus efforts to revise the plan, and ultimately lead to greater acceptance and use of the plan over time (Erchul & Martens, 2010).

A special series of *School Psychology Review* was devoted to the science of treatment integrity and efforts to promote greater attention to the development of it in school-based practice (Hagermoser-Sanetti & Kratochwill, 2009). Concerns about the degree to which practitioners and research assess integrity are noted with specific recognition of the importance of developing assessment methodologies that are not as intervention specific. For a more complete in-depth review of treatment integrity conceptual and measurement strategies, the reader is referred to

Sanetti and Kratochwill (2014). A brief review of varied strategies for measuring integrity is discussed below.

To begin, regardless of what integrity assessment methodology is used, it is important that a predetermined criterion for what constitutes treatment integrity be determined. That is, school psychologists want to have a numerical value established to draw conclusions as to whether the intervention was delivered in the manner it was intended to be. As an example, with the collection of interobserver agreement data in single-case research studies, Kratochwill et al. (2013) recommend that data should be collected at each phase in the study and for at least 20 % of each phase. Neely, Davis, Davis, and Rispoli (2015) describe minimal percentage agreement for observations should range between 80 and 90 %. The opportunity to have multiple observational raters for practice in each stage of the implementation may be a challenge for schools with deleted resources, but a level of integrity should be established a priori.

Intervention integrity may be assessed via reports by the implementer, the participant, or by experts in the intervention. Ratings by the implementer or participants in the intervention may be accomplished through their completion of a self-report survey or checklists in which they indicate to what degree they perceived that specific aspects of the intervention were delivered and how effectively they were administered. A percentage of steps completed is typically recorded and used as a measure of integrity. These data may then be reviewed with the implementer, and possible modifications to the procedures may be offered to promote greater fidelity to the treatment. These assessments are fairly easy to do, but there is certainly is a risk for bias in completion of these checklists. However, Sanetti and Kratochwill (2009) found a high level of agreement between self-report and more objective recordings of fidelity.

Another approach that may be more labor intensive involves direct observations of a partial or entire delivery of the intervention by the implementer. These observations may be live or via recordings of the intervention, and generally the observer is an expert in the intervention and has received training in delivery implementation and recording. Typically, they will view the session with a record of the expected steps of the intervention that are to be delivered and will record whether it was delivered as specified in the intervention protocol. Finally, a psychologist may use a permanent product recording to evaluate treatment integrity. A permanent product is an indirect measure of behavior and consists of evaluating the product of a specific behavior after the fact. For example, a psychologist may record an intervention session implemented by an educator and then watch the video at the end of the day to score how many steps of the intervention the educator implemented correctly. Neely et al. (2015) provide a number of examples of permanent products that could involve home–school notes, charts, or tokens.

Measuring Outcomes Assessment on the System and Classroom Level

Examining outcomes on the school-wide and classroom level allows the school psychologist and school officials to make data-based decisions on their school's classroom curriculum and interventions (Gibbons & Brown, 2014; Howell, Hosp, & Kurns, 2008). The school psychologist is expected to analyze data on both academic and social behaviors and use progress-monitoring data, to assist in making and evaluating instructional and behavioral recommendations (Howell et al., 2008). In this section, we provide a brief overview on the importance of measuring outcomes, as well as the different methods for evaluating interventions on the systems and classroom level.

It is crucial for educators and school administrative personnel to regularly engage with each other and discuss expectations for their students. For instance, there should be knowledge of state standards and determination of curriculum that lead to the goals for students. There needs to be consistent communication on students' progress, such as through reviews of academic grades and instructional support team (IST) meetings.

Formative and summative evaluations should occur to determine if goals have been met. That is, evaluation should occur during instruction to allow an opportunity for modifications and, after instruction, such as at the end of the academic year, to assess whether goals have been met. Gibbons and Brown (2014) outline a number of best practices in evaluating psychoeducational services using outcome data that include (a) developing clearly defined goals, (b) identifying performance indicators, (c) determining criteria for success, (d) describing the relationship between psychoeducational services and goals, (e) focusing on collaboration and teamwork, and (f) evaluating progress toward goals. Goals are typically district based and should be concise and measureable. Once goals are clearly defined, the next step would be to determine how student performance as related to those goals would be measured. The performance measure should be reliable, valid, and sensitive, meaning it should capture student achievement or behavior and his or her improvement over time (Deno, 1986). For example, schools may use curriculum-based measures (CBMs) to monitor students' basic skill areas or the amount of office referrals for behavioral indicators. Once performance indicators are identified, a criterion for success should be set that describes the desired outcome. Schools may administer state proficiency exams every term to assess their students' reading and math level. In the United States, schools commonly use CBM assessment materials like AIMSweb (http://www.aimsweb.com) or the Dynamic Indicators of Basic Early Literacy Skills (DIBELS), which are a set of short procedures and measures for assessing the acquisition of early literacy skills from kindergarten through sixth grade (University of Oregon, 2009; https://dibels.uoregon.edu). School psychologists and other educational professionals use DIBELS to identify students who are in need of early intervention (Goffreda & DiPerna, 2010). These screening assessments allow for comparative data (e.g., national, state, or district norms) and benchmark goals (e.g., assessing three times per year) and help determine whether a student is below their target proficiency. They are also useful in comparing and predicting student achievement and growth over time via research-based normative and relative growth information. The NAPLAN tests in Australia support schools to undertake continuous curriculum-wide progress monitoring in the areas of reading, writing, language conventions (spelling, grammar, and punctuation), and numeracy. NAPLAN testing gives schools the ability to map student progress, identify strengths and weaknesses in teaching programs, and set goals. More information on the reliability, validity, generalizability, and efficiency of universal academic measures can be found at http://www.rti4success.org/resources/tools-charts/screening-tools-chart.

Outcome data on a school-wide level involves collecting and organizing existing data, such as statewide assessment scores and office discipline referrals. For example, if fewer than 60 % of students perform at the proficient level each of the last five years and rates of office referrals are above the district average, it should lead to data analysis and development of systematic change (Castillo, 2014). Universal screening procedures allow collection of data within educational settings ranging from the individual to district level. They are designed to (a) be administered to all students; (b) identify students who are at risk of future academic, behavioral, or emotional difficulties, thereby be considered for prevention services or more intensive interventions; (c) provide data regarding the degree to which school-based academic instruction, behavioral assistance, and social-emotional programs are meeting the needs of students at the classroom, grade, school, and district levels; and (d) provide information to school psychologists and other educators about individual students' and systems' academic, behavioral, and social-emotional needs (Kettler, Glover, Albers, & Feeney-Kettler, 2014).

Universal screening data should directly link to intervention services. The school psychologist should be aware of measurement error when considering the universal screening data. Errors can often be overlooked in universal screening since the stakes tend to be lower compared to more stringent classification procedures on the individual level (Albers & Kettler, 2014). There are broadband, narrowband, and multiple-gate

approaches to universal screening. A broadband approach assesses several domains concurrently, and a narrowband approach assesses a specific domain, such as early literacy skills or disruptive behavior (Albers & Kettler, 2014).

Multi-gate approaches are conducted on fewer students and provide better accuracy in identifying at-risk students. Albers and Kettler (2014) offer an example of a multi-gate approach toward screening wherein a teacher completes an initial screen of the whole classroom at Gate 1, which consists of ranking the students according to frequency of disruptive behavior. In Gate 2, the teacher would complete a standardized behavior rating scale, for the five students who were ranked in Gate 1 with high frequency of disruptive behaviors. Gate 3 would then consist of the school psychologist performing a standardized observation of students who scored within the at risk or clinically significant range on the behavior rating scales. Parental ratings could also be supplemented for additional information. Although the initial process of the multi-gate approach can produce false positives (identified by the screening system but not truly warranting an intervention), it is in the later stages/gates that lead to more accurate identification.

The use of student performance data to evaluate core instructional programs, to arrive at data-based decisions about certain groups of students and at-risk students, and to deliver intervention to such students effectively and efficiently falls under the framework of RTI (VanDerHeyden & Harvey, 2013). Within the RTI model, there may exist a class-wide problem wherein too many students experience difficulty for a Tier 2 intervention to be effective, suggesting that the problem lies within the classroom rather than with an individual student (VanDerHeyden & Burns, 2005). Thus, it is important to consider class-wide EBIs to provide effective instruction to the students. If there is a difference between the student's performance and the performance standard, the school psychologist should determine whether there are other students with similar differences. If there are other students with similar difficulties, it is possible that a group intervention will be the most efficient approach as long as the problem analysis determines similar needs (Upah, 2008).

Monitoring student progress is critical to ensuring that students receive effective interventions and educational services. Collecting and analyzing progress-monitoring data are part of the problem-solving process. The data are critical to developing and evaluating the quality and effectiveness of interventions. Progress-monitoring data are most often in the form of a curriculum-based measure (Shinn, 2007).

School-Wide Academic Screening and Intervention

Curriculum-based evaluation (CBE) is a systematic approach to problem solving that can help school psychologists make data-based decisions about intervention planning that focuses on improving student outcomes (Howell & Hosp, 2014). Curriculum-based assessment (CBA) includes the knowledge and use of a variety of measurement and assessment tools (Howell & Hosp, 2014). Curriculum-based measures are a type of CBA and refer to a standardized set of procedures used to measure student performance in the areas of reading, math, and written expression (Howell, Hosp, & Howell, 2007). CBM usually includes a set of standardized and short duration tests (i.e., 1–5 min) used to evaluate the effects of instructional interventions in the basic skills of reading, mathematics, spelling, and written expression (Shinn, 1998). The use of CBM is suggested as performance indicators to assess student progress toward long-term goals (Shinn, 2010). With CBM, alternate forms of short tests are developed that sample performance toward the long-term goal or general outcome (Fuchs & Deno, 1991). Another feature of CBM is frequent monitoring and graphical depiction of student scores for decision-making, such as once or twice weekly assessments plotted on a time-series, equal-interval graph (Stecker, Fuchs, & Fuchs, 2005). Thus, CBM is used as a predictive approach to estimate whether students are on target toward meeting long-term goals and to determine whether current instruction is contributing to student growth. This assessment will help school psychologists and teachers modify instructional plans to meet individual student's needs.

School-Wide Behavioral Screening and Intervention

Schools are encouraged (e.g., US Department of Education, 2012; IDEA, 2004) to adopt evidence-based positive strategies for dealing with problem behaviors rather than discipline tactics that include punishment procedures (e.g., suspensions) (McKevitt & Braaksma Fynaardt, 2014). Implementation of whole-school mental health promotion, such as Australia's KidsMatter framework for supporting social and emotional well-being, has shown to improve children's ability to learn (Dix, Slee, Lawson, & Keeves, 2011). School-wide positive behavior interventions and supports (SWPBIS), also called positive behavior support and positive behavior interventions and supports (PBIS), are a broad set of research-validated strategies based on a problem-solving model that aims to prevent inappropriate behavior through teaching and reinforcing appropriate behaviors (OSEP Technical Assistance Center on Positive Behavioral Interventions and Supports, 2010; Sugai & Horner, 2006). Such strategies align with the core principles of the RTI model and are grounded in multi-tiered systems of support. Common behavioral expectations are identified, taught, and applied to all students. When students demonstrate the desired behaviors, they are to be acknowledged by verbal praise and tangible rewards (e.g., tickets to be redeemed for prizes, preferred activities). Proper implementation of SWPBIS strategies at the whole-school level has been shown to significantly reduce office discipline referrals (Bradshaw, Mitchell, & Leaf, 2010). SWPBIS supports the domain of Preventive and Responsive Services under the NASP Model for Comprehensive and Integrated School Psychological Services (NASP, 2010).

Data should be collected on SWPBIS' effects on student outcomes. Instruments such as the School-Wide Evaluation Tool (SET; Sugai, Lewis-Palmer, Todd, & Horner, 2001; http://www.pbis.org) and the Team Implementation Checklist (TIC; Sugai, Horner, & Lewis-Palmer, 2001; http://www.pbis.org) measure the implementation integrity of the universal level of a behavioral support model. These tools can provide scores that display whether a goal is obtained (e.g., at least 80 % on expectations rewarded or at least 80 % of steps achieved). To also evaluate the impact of a model such as SWPBIS, data of behavior incidents, such as discipline referrals, should also be collected. By regularly reviewing data, school personnel can analyze the frequencies and locations of certain problem behaviors and develop action plans to rectify any identified behavioral issues. The overall data on the school level can then be used to identify those students who need more support beyond the universal instruction (McKevitt & Braaksma Fynaardt, 2014). Targeted support should be implemented on a group or individual level to specifically address problem behaviors. Such interventions can range from social skills or problem-solving skills groups to individualized behavior intervention plans.

A classroom positive behavior support system can be established that is congruent to its school's SWPBIS (Tier 1) system. Teachers may incorporate a reinforcement system for their students. The SWPBIS data can help determine whether it is a system's issue or an issue with a select number of teachers. Teachers may also consult with the school psychologist if there is additional classroom support needed. For instance, if a classroom has a number of students with disruptive behaviors, the teacher and school psychologist may collaborate with each other to identify and analyze the problem. Baseline data should be collected, patterns of behavior should be analyzed, and a hypothesis of the function of the behavior should be developed. Then, an intervention plan should be developed that is linked to the hypothesis. The next step would be to implement the intervention with data recording to monitor effectiveness. During intervention, office discipline referrals can provide supplemental information. There are various instruments that assess a specific range of behaviors and serve as a tool to monitor progress and evaluate the intervention plan. The Behavioral Observation of Students in Schools (BOSS; Shapiro, 2003) is a useful observation code for assessing child academic behavior (i.e., on-task or off-task behavior). Other evidence-based measuring tools of social, emotional, and

behavioral functioning include the Behavior Intervention Monitoring Assessment System (BIMAS; McDougal, Bardos, & Meier, 2010), Behavior Assessment System for Children, Second Edition, Progress Monitor (BASC-2 Progress Monitor; Reynolds & Kamphaus, 2009), Direct Behavior Rating—Single Item Scales (DBR-SIS; Chafouleas, Riley-Tillman, & Christ, 2009), and Social Skills Improvement System (SSIS) Rating Scales (Gresham & Elliott, 2008).

Measuring Outcomes on the Individual Level

Overview of Measuring Individual Outcomes

Measuring individual outcomes is one of the main responsibilities of school psychologists providing services to address students' academic or social behavior in school settings. For example, a school psychologist may, in consultation with a teacher, design a behavioral intervention to increase the on-task behavior during instructional time for a student diagnosed with attention deficit hyperactivity disorder (ADHD) while implementing an ongoing data collection to measure the change in student's behavior before and after intervention. A school psychologist may also implement a cognitive behavioral intervention to teach a youth to manage his or her own behavior through cognitive self-regulation while collecting data to make programmatic decisions and evaluate the effectiveness of the intervention.

Numerous data collection systems exist that allow a school psychologist to measure individual outcomes to determine a student's progress or lack of progress. In this section of the chapter, we discuss the steps involved in designing interventions using some elements of single-case design (SCD) methodology that allow school psychologists to collect objective data and to assist with program evaluation and data-based decision making. Next, we present several guidelines for evaluating the effectiveness of such interventions at the individual level in school settings.

Designing Interventions and Measuring Individual Outcomes Using Single-Case Designs

Step 1: *Defining the target behavior*. A prerequisite for selecting a specific data collection system from a wide range of available options is the operational definition of the target behavior to be measured. An operational definition is a clear, accurate, and complete description of the target behavior in observable and measurable terms (Kazdin, 2011). For example, a school psychologist may define the behavior of signing "Please" as tapping one's chest with an open palm within 2–3 s of being presented with a preferred item or activity when working with a student who has limited or no speech. An academic behavior such as identifying sight words may be defined as reading words orally within 2 s of when presented with a flash card. The clear identification and operational definition of the target behavior is extremely significant because it guides the selection of the appropriate data collection system depending on the characteristics of the behavior and the purpose of the intervention (Brown, Steege, & Bickford, 2014).

Step 2: *Writing an intervention goal*. As we mentioned previously, one of the purposes of data collection is to inform the process of writing individual goals prior to intervention. Specifically, when writing individual goals, a school psychologist or a teacher must use data to not only justify the need for a specific intervention but also to formulate goals that are realistic and ambitious at the same time and build on a student's strengths with the ultimate goal of increasing his or her academic success or personal independence and self-sufficiency. For example, if data reveal that John completes a one-digit addition correctly within 30 min, an intervention goal for John may be to increase his fluency with this skill, so that he completes a one-digit addition within 2 or 3 min, an amount of time comparable with the

time needed by his peers to complete the same task. In this case, selecting an acceptable performance criterion for John is based on data collected on the amount of time necessary to complete the task.

Individual goals usually describe in measurable terms what the student needs to accomplish by the end of the intervention or the outcome of the intervention and consist of four components: the student, the target behavior, the conditions or instructional circumstances under which the student has to display the behavior, and the criterion for mastery (Mager, 1997; Wolery, Bailey, & Sugai, 1988). An example of an academic individual goal is "Tim will read the number orally when presented with ten flash cards displaying one-digit numerals and the instruction 'Read the number,' within 3 seconds for each number with 85 % accuracy for five consecutive intervention sessions." In this case, Tim is the student, reading numbers orally is the target behavior, when presented with ten flash cards displaying one-digit numerals and the instruction "Read the number" is the condition, and within 3 s for each number with 85 % accuracy for five consecutive intervention sessions is the criterion for mastery.

Step 3: *Selecting a data collection system*. Once the school psychologist operationally defines the target behavior, the next step is to select the data collection system from many available options (see Cone, 2001). In general, a data collection system has three components: a recording method, a recording instrument, and a recording schedule (Miltenberger, 2012). The first component of a data collection system is the *recording method*. The recording method refers to the procedure used to measure a student's performance of the target behavior. Multiple recording methods exist that allow a school psychologist to measure different characteristics or dimensions of a behavior. The most often used methods include frequency, duration, interval recording, latency, magnitude, and topography (Brown et al., 2014).

Frequency refers to the number of times a behavior occurs in a predetermined period of time. When recording frequency, a school psychologist counts and records each occurrence of the target behavior during a specific observation period (e.g., 30-min. instructional time). Examples of behaviors that can be measured using frequency recording include hand-raising, requests for assistance, words spelled correctly, math problems solved correctly, out-of-seat behavior, off-task behavior, or episodes of tantrums. Frequency recording is appropriate when the length of the observation period is constant across sessions or days. However, one of the advantages of frequency recording is that it allows a school psychologist to compare data collected across observation periods of various lengths by converting frequency to rate. Converting frequency to rate consists of dividing the number of times the target behavior occurred by the length of the observation period. For example, if Amy raised her hand 10 times during the 40-min science class on Monday, her rate is 0.4 per minute (10 occurrences divided by 40 min.). If she raised her hand five times during a 30-min math class on Tuesday, her rate is 0.6 per minute (5 occurrences divided by 30 min.).

Duration refers to the amount of time a behavior is performed or how long a behavior lasts. When recording duration, a school psychologist simply records the time when the behavior begins and ends. For example, the school psychologist starts the timer when Steve begins completing his math assignment and stops the timer when he discontinues working on the assignment. Duration data indicate that Steve worked on his math assignment for 20 min. Duration is appropriate for behaviors that are continuous or high frequency, and the purpose of the intervention is to increase or decrease the length of time a child performs a target behavior. Examples of behaviors for which duration recording is appropriate include on-task behavior, off-task behavior, social interaction, cooperative learning, cooperative play, rocking, crying, or tantrums.

Interval recording consists of recording the occurrence or nonoccurrence of the target behavior within specified time intervals. When using interval recording, a school psychologist divides the observation period in equal intervals and records whether the behavior occurs within those intervals. Depending on the type of interval recording, the psychologist may select to record

whether the behavior occurs during any part of the interval (i.e., partial interval recording), throughout the interval (i.e., whole interval recording), or at the end of the interval (i.e., time sampling). The length of the intervals usually ranges from 5 to 30 s depending on the characteristics of the target behavior. Examples of behaviors that can be measured using interval recording include on-task behavior, off-task behavior, completing a task, physical aggression, self-injurious behavior, or social interactions.

Latency refers to the amount of time that elapses between the presentation of an instruction and initiation of the target behavior. In other words, latency refers to how long it takes a child to engage in a behavior. When recording latency, a school psychologist documents the length of time between the end of an instruction and when the child began following the direction. For example, after being asked to start completing addition problems, Joe needed 20 min to start working. Latency is appropriate when the purpose of the intervention is to increase the amount of time an individual complies with a specific instruction or to decrease latencies that are too short. For example, a child may raise his or her hand during instructional time when a teacher asks a question but before she ends the question, and thus engages in incorrect responding.

Magnitude refers to the intensity or force with which a behavior is emitted. For example, a school psychologist may record how loud a child's vocalizations are or how intense is a self-injurious behavior such as banging one's head against a desk. Examples of behaviors for which magnitude may be appropriate include speech or other vocalizations, physical aggression, self-injurious behavior, using a pen to write, or using a keyboard to type. It is important to note that measuring the magnitude of a target behavior may sometimes result in subjective data that are difficult to quantify. For example, when asking a child to rate the intensity of pain inflicted by a peer during physical aggression using a scale, a school psychologist may obtain a subjective measure based on the child's sensitivity and tolerance to pain.

Topography refers to the shape or form of a target behavior or what the behavior looks like. For example, a school psychologist may use topography recording to collect data on the form of various behaviors displayed by a child during a tantrum or the letter formation during cursive handwriting. Topography recording is appropriate when collecting data on behaviors that must meet specific topographical criteria (Cooper, Heron, & Heward, 2007). Examples of behaviors that can be measured using topography recording include cursive handwriting or correct posture.

Because many behaviors can be measured using multiple recording methods, the selection of the appropriate method depends on the characteristics of the target behavior and the purpose of the evaluation (Cone, 2001; Kazdin, 2011). For example, a school psychologist may use frequency to record the number of correct words per minute read by a child within 10 min, if he or she is interested in measuring the child's progress on the number of words acquired within a specified period of time (e.g., 2 months). However, the school psychologist may use duration to record the amount of time necessary for a child to read a paragraph from a story book, if he or she is interested in measuring the reading fluency after the acquisition of newly taught words.

The second component of a data collection system is the *recording instrument*. The recording instrument is a data sheet or tool that allows a school psychologist to document one or multiple dimensions of a target behavior depending on the purpose of the evaluation. There are multiple formats of data sheets that can be adapted or created to meet the requirements of a specific situation. Most data sheets have several common components including the name of the student for which data are collected, the name of the recorder, the date of recording, a legend listing the behaviors recorded and their operational definitions, and directions on how to record data on the target behavior. Regardless of its format, each data sheet should be simple and easy to use and yield accurate and objective data to assist school psychologists and other professionals in making data-based decisions. Several resources are

available to assist school personnel with development of data collection tools. Examples of resources include the Intervention Central (http://www.interventioncentral.org), National Center on Student Progress Monitoring (http://www.studentprogress.org/families.asp), and PBIS (https://www.pbis.org).

The third component of a data collection system is the *recording schedule*. The recording schedule refers to the frequency with which data are collected on a target behavior. In general, this decision is made based on the type of target behavior on which data are collected. The guidelines published in the professional literature suggest that the most effective recording schedule consists of frequent data collection such as every two or three days for most social, academic, or other classroom related behaviors (Fuchs & Fuchs, 1986). In some cases, especially when a new intervention is first introduced to teach a skill or when the target behavior is problematic or dangerous, a school psychologist may decide to collect data every day or every intervention session until a change in behavior is documented (Brown et al., 2014; Farlow & Snell, 1994).

One aspect of data collection that merits further discussion refers to challenges associated with the data collection process in clinical and applied settings including schools. One challenge of data collection relates to the accuracy and reliability of data. Variables such as unintended changes in the way data are collected, recorder's expectations of how data should look like before and after the intervention, or student's awareness the he or she is observed may result in data that do not reflect an accurate level of student's performance on the target behavior (Kazdin, 2011). A second challenge of data collection relates to lack of knowledge and skills required to collect data including the recording schedule, analysis of data, and use of data in decision-making (Sandall, Schwartz, & Lacroix, 2004). A third challenge refers to the amount of time necessary to collect data on individual goals. Specifically, practitioners report that data collection can be too time consuming and sometimes interferes with other job responsibilities (Cooke, Heward, Test, Spooner, & Courson, 1991). Thus, it is important for school psychologists to become familiar and fluent with the most effective and feasible data collection systems to overcome various challenges encountered by professionals when implementing these procedures in applied settings and to provide training, assistance, and feedback to teachers who may be directly involved in data collection on student outcomes.

Step 4: *Selecting a design or evaluation strategy*. Continuous data collection is essential to program evaluation and data-based decision-making. Yet, as we mentioned previously, data collection is only one aspect of program evaluation. The second aspect of program evaluation refers to establishing a functional relation between a specific intervention and a child's performance on a target behavior. Ideally when evaluating the effectiveness of an intervention, a school psychologist makes statements about the effects of an intervention on a child's level of performance on a target behavior as compared to the effects of no intervention or alternative interventions, thus determining the presence or the absence of a functional or causal relation between an intervention and a behavior (American Psychological Association; APA, 2002). A functional relation exists when a child's level of performance on a specific behavior has changed when, and only when, the intervention was introduced. In other words, the intervention is responsible for the change in the child's behavior.

It is important to note that continuous data collection to measure intervention outcomes allows school psychologists to evaluate the direction and the magnitude of a child's progress after an intervention was introduced. However, data collection alone does not allow school psychologists to determine whether a functional relation exists between the intervention and target behavior (Alberto & Troutman, 2013). To document a functional relation, school psychologists must use experimental methods within certain design structures. The decision on whether to use a non-experimental design or an experimental design depends on the purpose of program evaluation, the skills and knowledge of the person implementing the program, and the complexity of variables characteristic to the applied setting in which an intervention is implemented. In most

applied settings, it is extremely difficult to use an experimental SCD to evaluate a treatment (Kratochwill & Piersel, 1983). However, various causal inference procedures can be used to increase the credibility of the conclusions that are drawn from nonexperimental SCDs (Kazdin, 1981; 2011).

Consider the following complexities of practice for evaluation of an intervention: if the goal is to increase the number of times a child raises his or her hand to ask questions during instructional time, the school psychologist may use a data collection system to measure the child's performance before and after the intervention within the context of a pre-post nonexperimental design. However, if the goal is to demonstrate that a child's on-task behavior across three different settings (i.e., reading class, math class, and science class) has increased when, and only when, the teacher used positive reinforcement in the form of specific verbal praise and the change in the on-task behavior is not the result of other variables (e.g., peer attention), the school psychologist may decide to measure individual outcomes repeatedly across the three classroom settings. The repeated measurement itself can increase the inference that praise was responsible for the increase in on-task behavior. However, an even stronger procedure would be to stagger in time the point at which teacher used the positive reinforcement in each of these settings (a SCD that is called a multiple-baseline procedure; see below).

Numerous types of SCDs exist that allow a school psychologist to measure individual outcomes and have demonstrated effectiveness for measuring and monitoring individual progress on a target behavior (Riley-Tillman & Burns, 2009). SCDs are experimental methods consisting of various designs involving repeated measures of a specific behavior under different conditions to evaluate the effectiveness of a treatment for an individual or a small group of individuals that serve as their own control (Kazdin, 2011). Multiple types of SCDs ranging from simple to complex can be used in applied settings to evaluate interventions and document functional relations between a behavior and an intervention. These designs will require replication to establish functional or experimental control. Again, in most school and applied settings, it can be very challenging to use any type of experimental SCD that involves formal replication and would meet the rigorous standards advanced for research. We mention these designs because they might be used under some rare and unusual circumstances in school settings for a clinical purpose rather that in the context of formal research.

Basic or case study designs. One of the most basic SCDs is the *AB design*. The AB design consists of two phases: the A phase (i.e., baseline) and the B phase (i.e., intervention). Baseline represents the phase of the design in which the school psychologist collects data on the target behavior performed by a child before the intervention is introduced, and it represents the child's current or existing level of performance. The B phase represents the phase of the design in which the school psychologist collects data on the target behavior after the intervention has been introduced. The AB design allows a school psychologist to make some inferences about the effectiveness of a specific intervention by comparing the child's performance before and after the intervention. Based on data collected, the school psychologist can also make decisions about the continuation, revision, or interruption of the intervention. The AB design is one of the most often used designs in applied settings because it is easy to implement and does not require extensive trainings, and it can provide school psychologists and other professionals an accurate and objective visual representation of a student's performance on a target behavior when these data are presented in a graph. Although it does not meet the rigor of experimental methods, the AB design is a feasible alternative that allows the evaluation of practices in applied settings.

Consider an example of an AB design (see Fig. 1) in which a school psychologist may collect data on the number of times a student initiates appropriate interactions with an adult during break. In this case, the school psychologist records baseline data for 3–5 days to document the number of appropriate interactions initiated by the student during break (the A phase). Next,

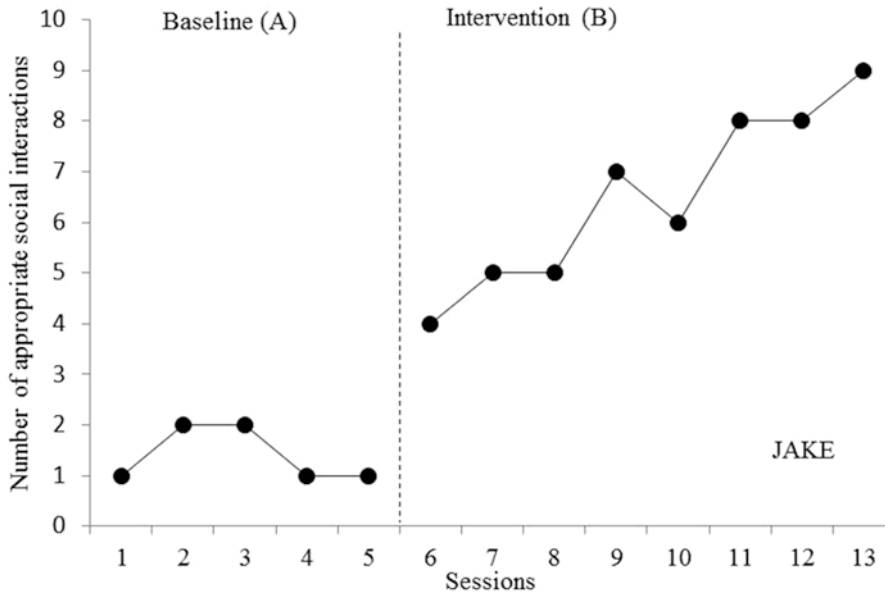

Fig. 1 Number of appropriate social interactions with an adult during break

the school psychologist introduces an intervention consisting of specific verbal praise (e.g., "Jake, I like the way you asked permission to go outside") contingent on the student's appropriate interaction with an adult and continues to record the number of appropriate interactions (the B phase). Finally, the school psychologist can analyze data collected and make revisions to instruction as necessary. The AB design could allow the psychologist to make some assumptions about the effectiveness of the intervention when an increase in the number of appropriate interactions is documented during intervention compared to baseline.

The AB design is a nonexperimental procedure, and thus, it cannot be used to demonstrate a functional relation between a target behavior and a specific intervention. Although data may indicate that a student's performance has increased after the intervention has been introduced thereby suggesting that the intervention is responsible for the change in behavior, a school psychologist cannot be confident that the increase in the target behavior is indeed the result of the intervention and not the result of other variables. For example, a school psychologist may implement an intervention to increase the in-seat behavior for a student with ADHD. She collected baseline data and determined that the student stayed in his seat an average of 3 min during the 15-min. independent work. The psychologist implemented an intervention consisting of a token economy system in which the student could earn one token for each 5-min in-seat behavior for a total of up to three tokens. Data indicated that the student was able to sit in his chair an average of 10 min. during the 15-min., independent work as soon as the intervention was introduced, and thus concluded that the intervention was effective. However, the same day when the intervention was implemented, the student's parents reported that he had a cold and the doctor prescribed some medication that made the student sleepy. In this situation, the medication may be responsible for the increase in the in-seat behavior, and therefore, the school psychologist cannot be confident that the token economy system produced the change in the student's behavior.

Despite the fact that the AB design does not demonstrate a functional relation between a behavior and an intervention, practitioners working in applied settings, including school psychologists, can draw valid inferences from AB designs by following several procedures (Kazdin, 2011). First, it

is important to *collect systematic data* on the target behavior. Collecting systematic data allows a school psychologist to document whether a change in behavior occurred after the intervention was introduced, but it does not provide information on why or how the change has occurred. Consider the case when a school psychologist collects systematic data on academic task completion after the implementation of a self-monitoring system for a middle-school student during math instruction. In this case, the school psychologist may document an increase in the percentage of tasks completed by the student shortly after self-monitoring was introduced, but he or she cannot draw any conclusions of why the increase in task completion occurred or explain how the change in task completion happened.

Second, *continuous measurement* of the target behavior has the potential to improve the quality of inferences drawn from an AB design as opposed to measurement at two points in time (i.e., pre- and posttest). Continuous measurement of the target behavior provides a school psychologist the opportunity to identify data patterns and to analyze whether the change in pattern coincided with the introduction of an intervention. On the other hand, collecting data on one or two occasions makes the process of ruling out alternative explanations for changes in target behavior very difficult. For example, a school psychologist assessing a student's reading fluency by administering a pre- and a posttest may not be able to rule out the possibility that changes in the assessment procedures lead to an increase in the student's performance on the posttest compared to the pretest.

Third, a school psychologist should consider an individual's *past and future projections of performance* when drawing inferences from AB designs. For example, a student experiencing chronic academic failure as documented by his or her performance on tests and assignments has a history of a low-level performance in academic areas, thus suggesting that the student's low-level performance is likely to continue unless an intervention is implemented. In this case, if a change in academic performance is documented after the onset of an intervention, the inference that the intervention is responsible for change is much stronger compared with a situation in which the student's previous or past performance is not documented and no comparison can be made.

Fourth, *immediacy and magnitude of change* are two important variables to consider when drawing inferences from AB designs. In general, the more immediate a change in the level of performance after the introduction of an intervention, the stronger an inference can be drawn that the intervention rather than other variables was responsible for change in behavior. The same logic applies to the magnitude of change. Specifically, a larger change in the level of performance after intervention allows for a more valid inference about the effectiveness of intervention compared to a smaller change. Please see below for a more detailed description of immediacy and magnitude of change.

Finally, *the number and the type of individuals* for whom the same intervention is implemented may influence the validity of inferences about the effectiveness of an intervention. Specifically, when an intervention is implemented with more than one individual or with individuals with different demographic characteristics, the inference that the intervention was responsible for change is much stronger compared to situations in which the intervention is implemented with only one individual. For example, a school psychologist implementing a token economy system to increase the on-task behavior for three students during science instruction is much more confident that the intervention produced an increase in the on-task behavior compared to a situation in which the token economy was implemented only with one student.

Classroom designs. It may be useful to evaluate the effectiveness of universal interventions by considering classroom-level outcome data, and evaluation of academic and behavioral concerns on the classroom level can be practical and efficient. The following description on the "B design," or Tier 1 practice, is discussed in detail by Riley-Tillman and Burns (2009). Within a B design, it is recognized that some intervention is currently in place, where some formal instructional practices are instituted in every regular

classroom. To assess the effectiveness of Tier 1 practices, whole class outcome data are collected from unit tests and standardized assessments. Riley-Tillman and Burns (2009) offer three critical decisions to consider when developing a B design. First, the selection of the target should preferably be a whole class or group. From gathering data of a whole group, all of the students' progress and their patterns can be monitored, in addition to providing important information on individual students who deem to be outliers or display problematic behavior. After the target is determined, some assessment method that feasibly and repeatedly measures that behavior is selected (e.g., office discipline referrals of a whole class). Finally, the target group must be compared to some standard, such as some growth benchmark like a standardized norm group or to other students in same educational setting. Although a B design can show what the target behavior looks like in a standard (Tier 1) environment, its limitation is that it cannot distinguish whether a particular intervention is responsible for any observed change in the target behavior or whether the change in the behavior would occur in the absence of the intervention. More formal options for evaluation of outcomes are discussed in the next section of the chapter.

Experimental single-case designs. In addition to case studies or AB designs, several experimental designs may be implemented in applied settings in certain circumstances. Table 1 displays the most common SCDs used in applied settings and their defining characteristics. The SCDs are represented in Fig. 2 (reversal design), Fig. 3 (multiple-baseline design across participants), and Fig. 4 (alternating treatments design). These designs each involve a replication component and can be used to establish a functional or experimental relation between the independent and dependent variable. They are used extensively in SCD experimental research in psychology and education.

Step 5: *Evaluating data*. Once the school psychologist has selected the most appropriate and feasible SCD to determine the effectiveness of a specific intervention, the next step is to evaluate data within the context of the selected design. The traditional method to evaluate data in SCDs consists of visual analysis. When using visual analysis to determine the effectiveness of an intervention, a school psychologist should evaluate several characteristics of data within and across phases including level, trend, variability, overlap, immediacy of effect, and consistency across similar phases (Kazdin, 2011; Kennedy, 2005). In recent years, more formal procedures have been advanced to assist with the visual analysis of data in designing studies and conducting literature reviews in which SCDs are used (see Kratochwill et al., 2010). *Level* refers to the magnitude and direction of change in a student's performance from the end of one phase to the beginning of the next phase. A large and immediate change in level is an indicator of an effective intervention. For example, if the percentage of correct single-digit additions increased from 30 % at the end of the baseline phase to 70 % at the beginning of the intervention phase, this would be considered an immediate and large change in level.

Trend or *slope* is the consistent decrease or increase in performance and requires at least three data points. A consistent performance in the desired direction after an intervention has been introduced suggests that the intervention was successful. For example, if data indicate that John engaged in 20, 18, and 17 episodes of verbal aggression during small group instruction, the school psychologist would argue that data suggest a decreasing trend in the desired direction. On the other hand, if data indicate that John engaged in 20, 30, and 35 episodes of verbal aggression during small group instruction, the school psychologist would say that data suggest an increasing trend in the opposite direction than the desired one. It is also possible that data may indicate no trend. For example, the number of episodes of aggressive behavior could remain relatively constant (e.g., 20, 21, 19) which would suggest no trend.

Numerous methods exist to calculate a trend to determine whether a student makes progress toward his or her intervention goal. One simple and straightforward method to calculate a trend is to use Microsoft Excel, a software program that

Table 1 Types of single-case designs

Design	Definition	When to use the design
Reversal (e.g., ABAB)	Examines the effectiveness of an intervention on a single behavior by replicating a baseline phase (i.e., A) and an intervention phase (i.e., B) that are repeated at least twice	When the intervention can be discontinued and the behavior can be reversed to baseline conditions
Multiple baseline across participants, settings, or behavior	Examines the effectiveness of an intervention across several baselines by implementing it at different points in time for each baseline	When the purpose of the intervention is to experimentally test the effectiveness of an intervention across participants, behaviors, and settings and when the behavior cannot be reversed
Alternating treatment	Consists of two or three interventions that are alternated in a counterbalanced or random order	When comparing the effectiveness of two or more interventions that can be alternated relatively rapidly

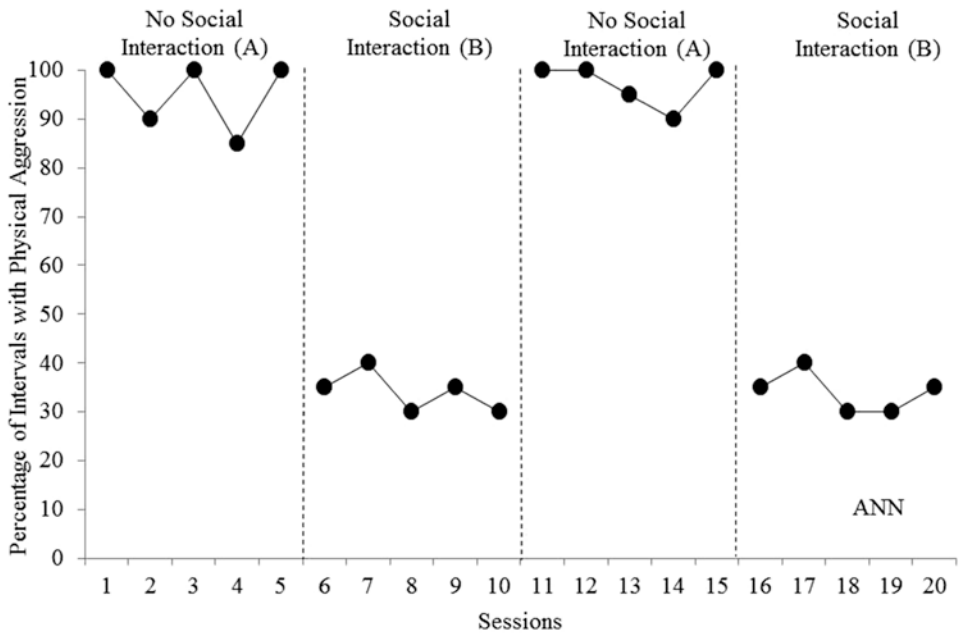

Fig. 2 Percentage of intervals with physical aggression across two conditions: no social interaction (**a**) and social interaction (**b**)

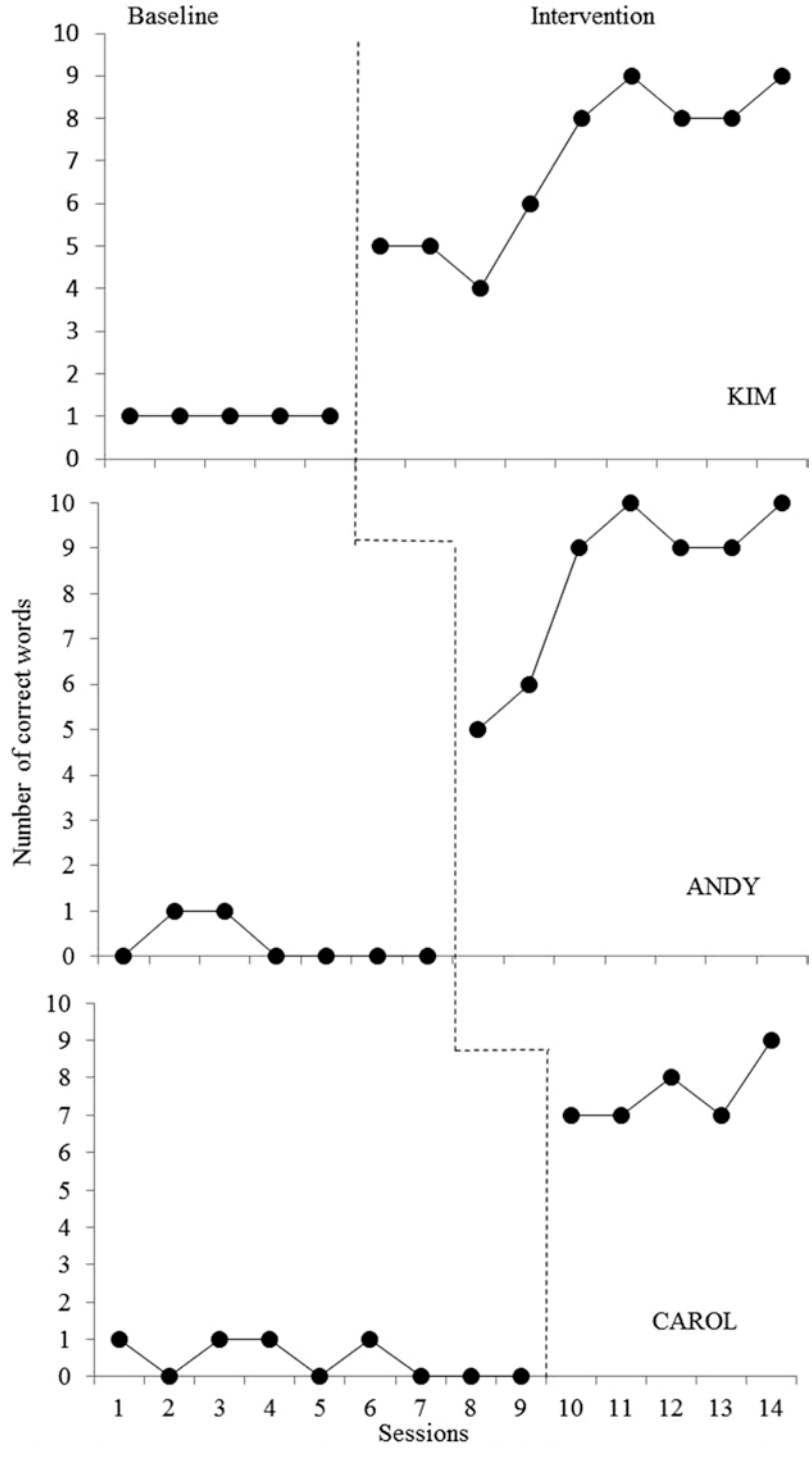

Fig. 3 Number of correct words read independently during one-on-one instruction

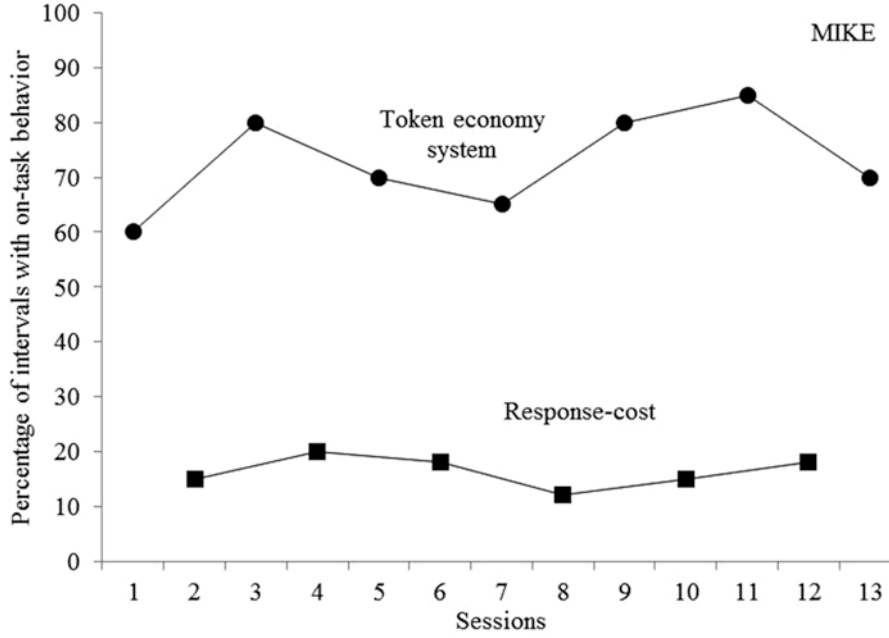

Fig. 4 Percentage of intervals with on-task behavior across two interventions: token economy system and response cost

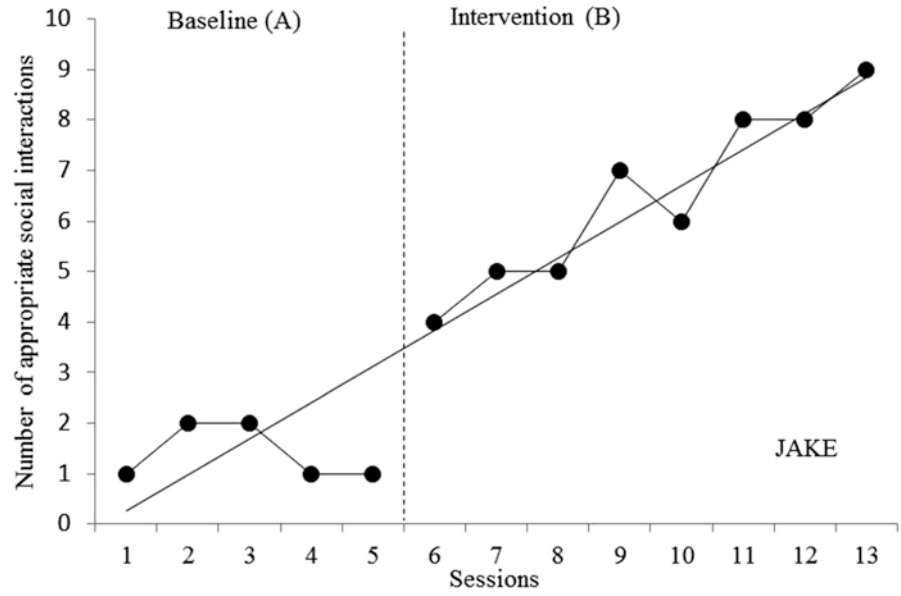

Fig. 5 Number of appropriate social interactions with an adult during break

can be used to record data. Figure 5 shows a trend generated in Excel that allows a school psychologist to make decisions about Jake's progress on initiating appropriate social interactions. To calculate a trend, the school psychologist (a) entered data in a spreadsheet and generated a line chart, (b) selected the chart displaying Jake's data, (c) chose the "Layout" option available in "Chart Tools", and (d) added a linear trendline (see Cummings & Martinez, 2012 for additional information).

Variability refers to the fluctuation of data from one intervention session to the next one or the range of data from the best-fit straight line (Horner & Spaulding, 2010). Data characterized by high variability are difficult to interpret and to evaluate the effectiveness of an intervention compared to data that indicate low or no variability. For example, reading fluency scores of 10, 35, 2, 50, and 20 indicate high variability, whereas scores of 10, 12, 15, 11, and 13 indicate low variability and have the potential to demonstrate a clear functional relation between reading fluency and a specific intervention.

Overlap refers to the percentage of data from the intervention phase that overlaps with the data from the baseline phase. An intervention is considered to be effective if data indicate a small percentage of overlapping data as opposed to larger percentages of overlapping data. For example, baseline data indicate that the percentage of on-task behavior ranges from 20 to 35. In the first intervention phase (i.e., verbal praise), seven of ten data points (70% overlap) fall within the same range as baseline, whereas in the second intervention phase (i.e., token economy), one of ten data points (10% overlap) falls within the same range as baseline. The overlap percentages suggest that the token economy may be more efficient to increasing the on-task behavior compared to verbal praise.

Immediacy of effect refers to the length of time between the onset or termination of one phase and the change in behavior. When determining the immediacy of effect, a school psychologist evaluates the change between the last three data points in one phase and the first three data points in the next phase (Horner & Spaulding, 2010). A more immediate change is an indicator of a more effective intervention compared to a delayed change. *Consistency across similar phases* refers to a data pattern across all baseline and all intervention sessions within a design. Greater consistency across similar phases indicates a clearer functional relation between a behavior and a specific intervention.

It is important to consider all the abovementioned elements when using visual analysis to evaluate the effectiveness of an intervention. In addition to the visual analysis, a school psychologist should also assess the clinical or practical significance of the intervention. Specifically, it is important to determine whether the change in a student's behavior as a result of an intervention is large enough to make a difference in the student's daily functioning and improve his or her level of functioning and quality of life. Methods for assessing the clinical significance of an intervention may include surveys, questionnaire, and interviews with the students, educators, or parents and professional judgment (see Kazdin, 2011, for more information on social validity of intervention outcomes).

Data-based decision-making. An effective intervention requires ongoing data collection and analysis to make data-based informed decisions leading to successful individual outcomes. Data-based decision-making consists of revisions or modifications of an intervention to increase the likelihood of goal attainment. For example, if data indicate that a student's level of performance has increased after the intervention was implemented, then the school psychologist may decide to continue the intervention in its current form without any revisions. However, the school psychologist may decide to modify or revise the intervention when data indicate that the student's performance has not changed after the intervention was introduced. Revisions may also be necessary when data indicate that the student's level of performance after the intervention decreased compared to his or her performance before the intervention was introduced.

Data-based decision-making using SCD data is sometimes a very complex process due to the lack of concrete decision rules for determining the strength of a functional effect (Kazdin, 1998). When data-based decision-making using SCD data is used in applied settings including schools, it is recommended that school psychologists and other professionals use dual criteria to evaluate the effectiveness of an intervention, namely, the overall change in the target behavior and the social validity of the outcome and/or the social consequence of the target behavior (Alberto & Troutman, 2013; Stoiber & Kratochwill, 2002).

Conclusion

Measuring individual, classroom, and school-based outcomes using some basic elements of SCD data and larger classroom or systemic approaches may assist school psychologists and other professionals with program evaluation and data-based decision-making and are practical and important methodologies that may be used in the schools. The core elements of program evaluation and data-based decision-making are: defining the target behavior, selecting a data collection system, selecting an appropriate design or evaluation strategy, and evaluating data. It is important for the school psychologist to become familiar and fluent in using the methods described in this chapter to be able to collect objective data and make informed decisions and to train other professionals working with children and youth in applied settings.

Test Yourself Quiz

1. What are the five steps involved in designing interventions using single-case design methodology to address students' academic or social behavior in school settings?
2. Describe the six elements of visual analysis used to determine the effectiveness of an intervention within the context of a single-case design.
3. What are some of the variables to consider when implementing an outcomes' assessment within a school setting?
4. Consider what the differences are between individual, classroom, and system-wide outcomes assessment, and what would guide your decision-making process in choosing outcomes assessment.

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Integrating Positive Psychology and Gratitude to Work in Schools

Mikki Krakauer, Danielle Ruscio, Jeffrey Froh, and Giacomo Bono

Introduction

Positive psychology is centred on helping individuals function optimally (i.e. reducing pathology *and* nurturing strengths). This dual focus, however, is relatively new to psychology. Psychology has, since its origins, focused on disease-centred, pathological models of human functioning (Seligman & Csikszentmihalyi, 2000). Prior to World War II, psychology focused on curing mental illness, figuring out ways to make employees more productive and assessing soldiers or students for placement in more appropriate positions or programmes. After World War II, the focus on curing pathology intensified, shifting trends away from understanding strengths and promoting optimal functioning (Seligman & Csikszentmihalyi, 2000).

But following the conclusion of World War II, a series of events prompted a shift in the field of psychology, leading to the introduction of positive psychology. Both during and after World War II, there was a dramatic increase in the rate of posttraumatic stress disorder (PTSD) diagnoses among war veterans. This required a focus on curing pathology, rather than promoting productivity and wellbeing. Psychologists, however, began to recognise that certain individuals were less likely to experience symptoms associated with PTSD, leading them to question the specific traits responsible for this resiliency. This, in turn, prompted psychologists to pay attention to the individual strengths that may be responsible for preventing psychological illness, such as courage, optimism, hope and gratitude (Seligman & Csikszentmihalyi, 2000).

Positive psychology was popularised in 1998 when Martin Seligman, the then president of the American Psychological Association, urged other psychologists to study not only what is wrong with people but also what is right. Since then, positive psychology has gained significant momentum within the field. The study of strengths and virtues now has a solid empirical base that did not exist 15 years prior (Lopez, Teramoto, & Snyder, 2014). For example, though revered by all major world religions, gratitude has largely been an understudied virtue up until a decade ago (Emmons, 2013). And while there has been a dramatic increase in gratitude research with adults (Emmons, 2007), research exploring gratitude in youth has only recently been growing (Froh & Bono, 2014).

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Baumgarten-Tramer was way ahead of the curve when she identified four different types of grateful expression in youth in 1938: *verbal gratefulness* (e.g. "I should thank him"); *concrete gratefulness* which occurs when the child wants to give the benefactor something in return for the gift (e.g. "I should give him a book, a bow, a pocket knife"); *connective gratitude* which is an attempt by the beneficiary to create a spiritual relationship with the benefactor (e.g. "I would help him in case of need"); and *finalistic gratefulness* which is the "tendency of the child or youth to reciprocate for the realisation of his wish by an action which would be in some way helpful for the object or the situation desired or would promote their personal development" (Baumgarten-Tramer, 1938, p. 62). This is exemplified by the child who wishes to make the wrestling team and, if he achieves his goal, intends to express gratitude by always practising his drills at home and being early to practice and tournaments.

But after that the field went silent. It was not until the 1980s that gratitude in youth research began to emerge. These studies, however, were in the field of linguistics, and researchers were interested in studying gratitude as a politeness routine, not as a genuine emotion felt when one is the beneficiary of another's kind act. Finally, in 2006, Park and Peterson published the first study on gratitude and wellbeing in youth showing that grateful children and adolescents were more satisfied with their lives. Then in 2008, research on school-based gratitude interventions surfaced (i.e. Froh, Sefick, & Emmons, 2008). Since then, gratitude in youth has been put on the empirical map (Froh & Bono, 2014). But there are still many questions left unanswered.

Though positive psychology continues to gain recognition within the field of psychology, school psychology has mostly followed a disease-oriented model. Indeed, school psychologists continue to place a heavy emphasis on the assessment, diagnosis and treatment of pathology, while paying little to no attention to children and adolescents' assets and strengths (Froh, Huebner, Youssef, & Conte, 2011). A recent content analysis of 1,168 articles from the major school psychology journals indicated that only 27% of the articles had a positive focus (addressing one or more positive constructs). In addition, popular topics among the media, such as happiness, optimism and purpose in life, were found sparingly among these articles (Froh et al., 2011). Thus, while positive psychology has gained momentum in the field of psychology, there is still much to be done to promote its presence within the schools. After all, central goals for schools are to nurture achievement and socialise students into becoming moral, productive agents in society. School psychologists should therefore continue to focus on promoting a science that denotes equal attention to curing pathology *and* promoting positive wellbeing.

Many positive psychology constructs beyond gratitude could be used to implement positive change in schools. Hope could be used to help youth set and achieve goals (Lopez, 2013), flow could be encouraged to help youth become more engaged with academics and sports (Shernoff, Abdi, Anderson, & Csikszentmihalyi, 2014) and purpose could help youth feel connected to something larger than themselves and thrive (Lopez & Snyder, 2009). Focusing on all of them, however, would not be feasible for the purpose of this chapter. We therefore limit our main focus to the virtue that has been proven to be the strongest relation to life satisfaction in youth: gratitude (Park & Peterson, 2006).

We begin this chapter by describing the three empirically supported gratitude interventions for youth. We then discuss best practices in gratitude assessment in children and adolescents, followed by highlighting gratitude's role in school functioning. We then move on to a detailed account of positive psychology's current role in the Australian school system and discuss ethical issues faced by school psychologists. We close with future implications of how to further advance the study of gratitude in youth.

Gratitude Interventions for Children and Adolescents

Gratitude is a sense of joy and thankfulness in receiving a gift from a specific other or experiencing a moment of peaceful bliss (Emmons,

2004). One of the most commonly used interventions for boosting gratitude in adults and youth is the **gratitude journal**. Froh et al. (2008) conducted a study on gratitude in early adolescents using gratitude journals. Each day for 2 weeks, middle school students were asked to list five things for which they were grateful. These students were compared to two other groups of students: one group was asked to write about the hassles in their life and another group simply completed a survey. The authors found that keeping a gratitude journal was related to more optimism and life satisfaction as well as less negative emotions and physical complaints (Froh et al., 2008). It was also found that students who kept a gratitude journal, compared to students in the other two groups, reported higher satisfaction with their school experience immediately after the 2-week period (Froh et al., 2008) and 3 weeks later as well (see Fig. 1). Expressions of school satisfaction included statements such as: "I am thankful for school", and "I am thankful for my education". The importance of this is seen when one considers that school satisfaction is positively related to academic and social success (Verkuyten & Thijs, 2002). Therefore, fostering gratitude in youth by means of the gratitude journal could be an effective intervention to promote more positive views of school.

The **gratitude visit** is another intervention in which students were asked to write thank-you letters to someone who has helped them in some way but whom they have never properly thanked. The students then read their letters to the recipients in person. After the visit, the students met and discussed their experiences (Froh, Kashdan, Ozimkowski, & Miller, 2009). One 17-year-old girl in the mentioned study wrote the following letter to her mother and read it to her aloud:

> "I would like to take this time to thank you for all that you do on a daily basis and have been doing my whole life…. I am so thankful that I get to drive in with you [to school] every day and…for all the work you do for our church…. I thank you for being there whenever I need you. I thank you that when the world is against me that you stand up for me and you are my voice when I can't speak for myself. I thank you for caring about my life and wanting to be involved…for the words of encouragement and hugs of love that get me through every storm. I thank you for sitting through countless games in the cold and rain and still having the energy to make dinner and all the things you do. I thank you for raising me in a Christian home where I have learned who God was and how to serve him…. I am so blessed to have you as my mommy and I have no idea what I would have done without you."

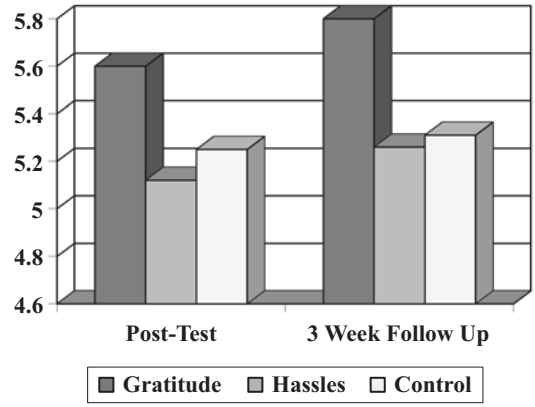

Fig. 1 The figure represents student's rating of school satisfaction on a scale with scores ranging from 1 to 7

It was found that students who began the study low in positive emotions reported more gratitude (see Fig. 2) and positive emotions (see Fig. 3) immediately after the study. These students reported more positive emotions 2 months after the study as well (see Fig. 4) when compared with students who did not participate in a gratitude visit (Froh, Yurkewicz, & Kashdan, 2009).

There are several key principles that adults can use to promote gratitude among youth. These are all incorporated into the recently developed **gratitude curriculum** (Froh et al., 2014), which has been administered to elementary school students in New York. This curriculum aims to instil grateful thinking in youth through five lesson plans that do not require an explicit focus on gratitude itself. There are three key principles within the gratitude curriculum that can foster the practice of gratefulness in everyday life. They are:

Notice intentions. Cultivating an "attitude of gratitude" among children goes a long way. Noticing intentions consists of encouraging youth to appreciate the thought behind gifts they receive from others. Another component of this principle involves reflecting on how someone noticed their need and

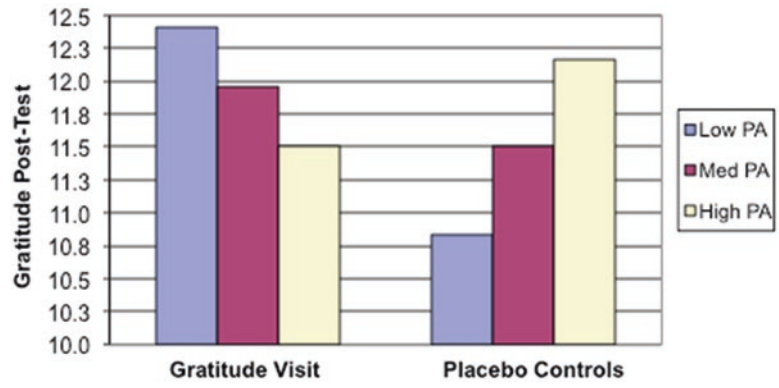

Fig. 2 The scale can yield scores from 3 to 15

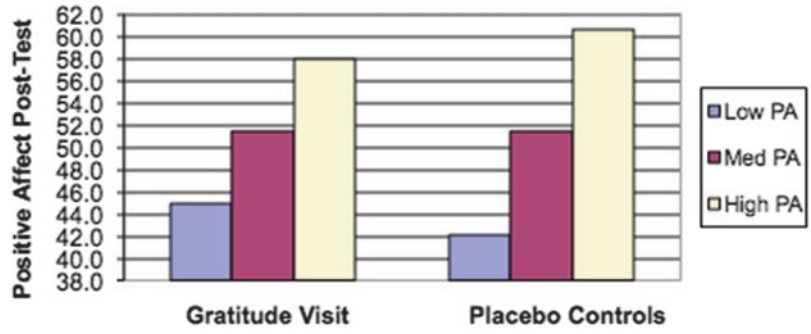

Fig. 3 The scale can yield scores from 15 to 75

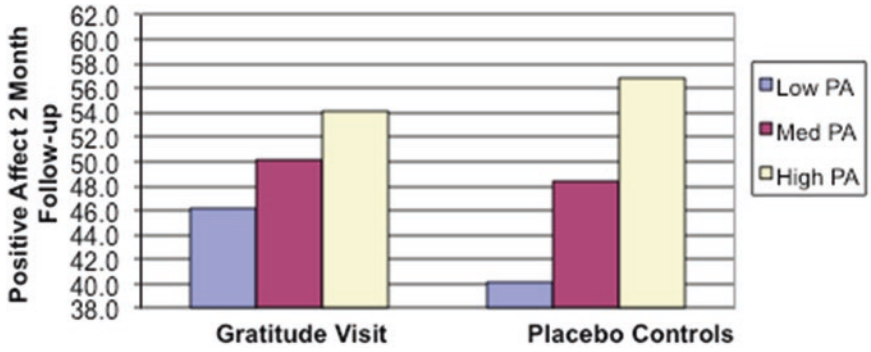

Fig. 4 The scale can yield scores from 15 to 75

acted to fulfil it. To get children to reflect on the intentions behind the gifts they receive, adults can prompt them with a question such as, "Can you think of a time when a friend (or parent, teacher, or coach) noticed something you needed (e.g. lunch), or remembered something you care about and then provided you with those things?" (Froh et al., 2014). As children give their answers, adults could have them elaborate further by asking questions such as, "How did you know they helped you on purpose?" (Froh et al., 2014).

Appreciate costs. It is important to emphasise to children that when someone is helpful, that person is usually sacrificing something (time or preferred activities) to be helpful (Froh et al., 2014). Adults could stress this point by asking questions such as, "What are some things your friend gave up to help you study for that test?" or by stating, "Wow, your classmate let you use the computer when it was her only turn for the day!"

Recognise the value of benefits. Reminding children that when others help us, they are

providing us with "gifts" is another technique adults can use to foster gratitude (Froh et al., 2014). Within the gratitude curriculum, children are prompted to focus on the personal value of the kind acts of others. Adults can do this by having children complete sentence stems such as, "My day (or life) is better because…" and give examples such as, "… my teacher helped me when I didn't understand something" (Froh et al., 2014).

Findings from studies conducted in the USA looking at the gratitude curriculum indicate that children's ability to think gratefully can be strengthened, and with this change comes improvements in their moods (Froh et al., 2014). A daily version of the curriculum was related with increases in gratitude and grateful thinking at the immediate posttest and led primary aged children to write 80% more thank-you cards to their Parent-Teacher Association (see Fig. 5); their teachers found them to be happier as well. And a weekly version of the curriculum was related with increases in gratitude, grateful thinking and positive emotions up to 5 months later (Froh et al., 2014). While this gratitude curriculum has only been tested with children ages 8–11, it can easily be adapted for use with early and late adolescents.

Researchers have made great strides in studying gratitude interventions and their effects on youth and adults. There is still, however, more work to be done regarding the assessment of gratitude in youth populations, as there is a need for more appropriate measurement tools for assessing gratitude in children. The next section of this chapter will discuss the current measures that are empirically validated to assess gratitude in children and adolescents.

Best Practices in Gratitude Assessment

Gratitude assessment in adults has gained momentum in recent years, with the development of a series of scales that are directly intended to measure gratitude levels in adults (McCullough, Emmons, & Tsang, 2002; Watkins, Woodward, & Stone, 2003). Because of this, psychologists have been tempted to utilise adult gratitude measurement scales to assess children and adolescent gratitude. Researchers, however, caution against relying on these measures, as children and adolescents experience and express gratitude differently than adults (Froh, Miller, & Snyder, 2007). In addition, it is difficult to assess genuine gratitude in children and adolescents because gratitude's exact emergence is still unknown. Thus, researchers often must distinguish between children being grateful and children being polite (Froh & Bono, 2014). Therefore, researchers have directed their attention to establishing and developing measurement scales that are aimed at promoting an understanding of the development and expression of child and adolescent gratitude.

One such study assessed the degree to which adult gratitude scales were psychometrically strong when measuring children and adolescents' (aged 10–19) gratitude (Froh et al., 2011). This study assessed the psychometric strength of three adult gratitude scales: the Gratitude Questionnaire-6 (McCullough et al., 2002), the Gratitude Adjective Checklist (McCullough et al., 2002) and the Gratitude, Resentment and Appreciation Test-short form (Thomas & Watkins, 2003). The first was the Gratitude Questionnaire-6 (GQ-6). The GQ-6 is a six-item, self-report scale that utilises a Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). Adults are asked to rate each item to the degree that it describes them. The GQ-6 is a measure of dispositional gratitude, which looks specifically at four qualities of gratitude (intensity, frequency, span and density). Intensity refers to the idea that one who has a greater disposition towards gratitude will experience a positive event with more intense gratitude than someone who is less disposed to gratitude. Frequency refers to the idea that individuals with a stronger grateful disposition will experience gratitude more often throughout the day. Span refers to the idea that those with a greater disposition towards gratitude experience gratitude for a wide variety of life circumstances. Density refers to the idea that those with high levels of grateful disposition attribute gratitude for positive events to many different

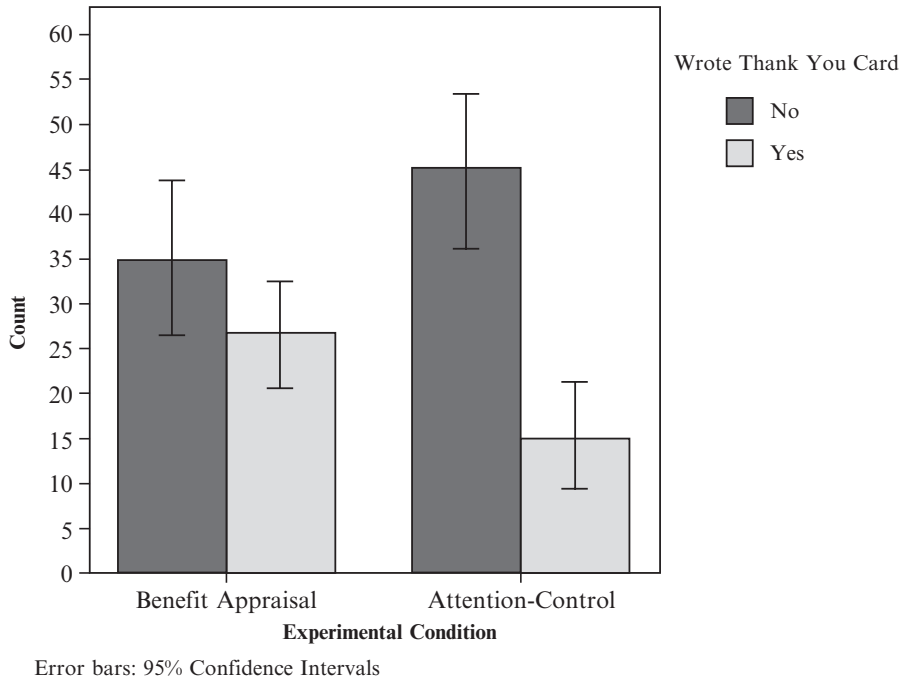

Fig. 5 The scale can yield scores from 9 to 45

people, rather than just one. This scale is frequently utilised to measure adult's dispositional gratitude (McCullough et al., 2002).

The Gratitude Adjective Checklist (GAC) is a three-item scale that measures gratitude as a mood, emotion or disposition. Specifically, this checklist measures the degree to which a person feels grateful, thankful and appreciative based on a Likert scale ranging from 1 (very slightly or not at all) to 5 (extremely; McCullough et al., 2002). Previous studies have utilised the GAC as a means to assess youth and adolescents' dispositional gratitude and gratitude as a mood or state through the manipulation of scale instructions. Therefore, instead of asking students to rate the degree to which they feel grateful, thankful and appreciative in general (dispositional gratitude; Froh, et al., 2011), they were asked to rate the degree to which they experienced these feelings during the past few weeks (gratitude as a mood; Froh, Yurkewicz & Kashdan, 2009) or at present (state gratitude; Froh et al., 2007).

The third scale is the Gratitude, Resentment and Appreciation Test (GRAT) that measures gratitude as a personality disposition. The GRAT is a 44-item, self-report questionnaire that measures a person's sense of appreciation for their lives and for others. This scale uses a Likert scale that ranges from 1 (strongly agree) to 9 (strongly disagree). The shorter version, GRAT-short form, is a 16-item, self-report scale that measures the same construct as the longer version (Thomas & Watkins, 2003). The short form was utilised in Froh et al. (2011) to measure youth's dispositional gratitude.

The study conducted by Froh and colleagues (2011) examined the psychometric properties of each of these gratitude assessment measures to empirically validate their strength in measuring child and adolescent (aged 10-19) gratitude. Within this study, 1,405 middle school and high school students were administered each of the measurement scales. Single-group and multiple group confirmatory factor analyses were conducted to determine the correlations between each of the three scales. Results indicated that the factor structure of these gratitude scales when administered to children and adolescents were

similar to those when administered to adults and did not vary across age groups. Scores also indicated internal consistency ($r = .70$) among the three gratitude scales across age groups.

Results indicated that, while the GQ-6, the GAC and the GRAT-short form were all positively correlated with one another for adolescents between the ages of 14 and19, the GRAT-short form evidenced lower positive correlations with the other two scales for youth aged 10–13. This lower correlation, however, could be attributed to the complex language utilised in this scale, in comparison to the cognitive and experiential developmental limitations of youth in this age range. Convergent validity was demonstrated between the three gratitude scales and positive affect and life satisfaction.

These results suggest that researchers are making gains in establishing psychometrically valid measures that can be utilised to assess dispositional and emotional gratitude in children and adolescents (Froh et al., 2011). When assessing youth and adolescents, however, it is always important to take a multifaceted approach to assessment, to ensure that valid and consistent measurements are obtained.

Gratitude and School Functioning

School psychologists have largely focused on a disease-centred approach to treatment (Froh, et al., 2011). This prevents them from viewing the whole picture of a child, as the psychologist neglects to pay attention to the child's strengths, such as gratitude. The purposeful practice of gratitude can help youth obtain more fulfilling relationships and more engagement with their schools and communities (Froh & Bono, 2014). We now discuss the role of gratitude and its beneficial impact on different aspects of school functioning.

Increasing Satisfaction with School

While school reform efforts have been focused on improving academic performance, little work has been done to address negative affectivity within schools (Huebner, Drane, & Valois, 2000). Students who are dissatisfied with school tend to display poor academic performance, excessive absences from school and weak social ties; school dissatisfaction may also result in students completely dropping out of school (Ainley, 1991). By contrast, students who are satisfied with school report that they enjoy school, they look forward to attending school, they find school fun and they feel that they are learning a significant amount. These students also have greater academic and social success (Verkuyten & Thijs, 2002). Therefore, it is crucial for school psychologists to use interventions that help youth increase their school satisfaction.

Recall that students who kept a gratitude journal for 2 weeks, compared to controls, were more likely to report being satisfied with their school experience at the immediate posttest and 3-week follow-up. Grateful youth also tend to report higher grade point averages compared to less grateful youth, suggesting that gratitude interventions may help to facilitate improved school performance (Froh, Emmons, Card, Bono, & Wilson, 2011). Together, these findings suggest that gratitude journaling may help youth become more satisfied with school (Froh et al., 2008). This might be because gratitude growth over a 4-year period is related with adolescents feeling more connected to their teachers and schools, as well as having more caring, supportive mentors (Froh & Bono, 2014).

Enhancing Motivation and Engagement in School

Beyond poor academics and having weak social ties, students who are dissatisfied with school also tend to be disengaged in the classroom and report lower wellbeing (Ainley, 1991). Flow is a state where one feels "in the zone" and completely absorbed in an event or activity (Nakamura & Csikszentmihalyi, 2002). Montessori schools promote the experience of flow for its students by encouraging children to choose their own activities and engage in serious play (Terjesen, Jacofsky, Froh, & DiGiuseppe, 2004). Children

who experience flow throughout the school day are more likely to display stronger academic performance, improved self-esteem, greater commitment to both academic and personal skills and greater engagement in school (Csikszentmihalyi, Rathunde, & Whalen, 1993). Therefore, implementing interventions that encourage the experience of flow within the general education setting may benefit children by increasing their motivation and engagement. Because grateful youth report more experiences of flow (Froh, et al., 2011), helping youth become more grateful may help promote more instances of flow and thus more student engagement and better academic performance.

Strengthening Interpersonal Relationships

Unfortunately, teachers can sometimes respond to a disengaged student in a way that lowers his or her academic motivation even more (Skinner & Belmont, 1993), thus causing a downward spiral of negative teacher-student interactions and poor interpersonal relationships in the school setting. Teacher-student conflict is associated with lower academic grades and standardised test scores, in addition to poor work habits and an increase in delinquent behaviour (Hamre & Pianta, 2001). Poor teacher-student relationships have a significant effect on students' academics and wellbeing as well. Grateful youth, however, report stronger and more supportive relationships with teachers and mentors (Froh & Bono, 2014). Therefore, school psychologists should consider using gratitude interventions as standard techniques in working with children and adolescents to help youth thrive academically, emotionally and socially.

Social support and the presence of strong interpersonal relationships are vital factors that contribute to children's development and school experience because youth who are disconnected from school are disengaged from learning. They are also at an increased risk for delinquency and lower psychological wellbeing (Hamre & Pianta, 2001). This is partly explained by the finding that developing a strong circle of social support contributes to students' sense of school belongingness (Drolet, Arcand, Ducharme, & Leblanc, 2013).

Gratitude interventions seem like an appropriate treatment for increasing a child's sense of social connectedness given gratitude's positive correlation with strong social ties and the belief that one is part of a larger school community (Froh & Bono, 2014). Indeed, gratitude is the social glue that binds people together. Gratitude interventions may help facilitate positive social interactions and strengthen existing ones by helping students develop a greater ability to recognise the hard work of school organisations and the contributions made by others (teachers, faculty and administration) in support of their wellbeing. This new skill will improve students' attitudes towards teachers and thus their overall school engagement (Froh et al., 2008).

We have discussed in depth the importance of positive psychology, particularly gratitude, in the school system. The next section of this chapter discusses positive psychology in the Australian school system, with a focus on the first Australian school to develop a whole-school positive education programme.

Positive Psychology in the Australian School System

There is widespread concern about the increase in depression and anxiety in youth. In Australia, more than 26 % of people aged 16–24 years and 25 % of people aged 25–34 years have experienced a mental disorder of 12 month's duration, compared with 5.9 % of those aged 75–85 years old (ABS, 2008). Further, more than 75 % of all severe mental illnesses occur prior to the age of 25 (ABS, 2008).

In recognition of the increasing statistics on psychological distress and mental illness in youth, there are growing numbers of schools in Australia that are now acknowledging the need to develop students in a more holistic way, with a stronger focus on wellbeing (Green, Oades, & Robinson, 2011). Seligman, Ernst, Gillham,

Reivich and Linkins (2009) argue that wellbeing should be taught in school for three purposes: as "an antidote for depression, as a vehicle for increasing life satisfaction, and as an aid to better learning and more creative thinking" (p. 295).

One particular programme in Australia that teaches youth how to increase their wellbeing is Aussie Optimism. This is a social and emotional learning programme that was developed by Claire Roberts and was designed for students aged 11–13 who are transitioning to high school. The programme incorporates principles of positive psychology and, utilising cognitive-behavioural techniques, helps children identify negative thoughts and circumstances that could potentially contribute to the development of anxiety and depressive symptoms. This programme also equips children with the tools and coping strategies necessary to handle future stressors and negative circumstances (Robert, Ballantyne, & van der Klift, 2002). Children exposed to the Aussie Optimism programme have demonstrated lower levels of internalising problems and lower instances of anxiety and depression after transitioning to high school (Robert et al., 2002).

Much of the interest in positive psychology in Australia arose because of the work of Martin Seligman from the Positive Psychology Center at the University of Pennsylvania, who developed a whole-school positive education programme for Geelong Grammar School (GGS) in Victoria, Australia (Green et al., 2011). Never before had an entire school been completely infused in positive education.

GGS has four campuses with over 1,500 students and over 400 members of the school community. Positive psychology resonated with the staff because of its "preventative and proactive approach" (Norrish, 2015, p.16). When Seligman and his team arrived at GGS in 2008, it was decided that the school's broad vision of enriching wellbeing within educational settings would best be described not as "positive psychology" but as "positive education" (Norrish, 2015), defined as "education for both traditional skills and for happiness" (Seligman et al., 2009, p. 1) or "applied positive psychology in education" (Green et al., 2011).

Seligman assembled 15 trainers from the University of Pennsylvania to teach the skills of positive psychology (e.g. gratitude, resilience, character strengths, optimism) to about 100 members of the school community (Seligman et al., 2009). In a 9-day programme, Seligman and his team emphasised how the teachers could use positive psychology skills in their personal and professional lives and gave detailed curricula of how to teach these skills to children (Seligman et al., 2009). The principles and skills were taught in sessions to all participants and reinforced through exercises and applications in smaller groups. Several training staff lived on the school campus for the entire year. About a dozen visiting scholars (e.g. Barbara Fredrickson, Christopher Peterson, and Nansook Park) came to GGS, each for a week or more, to instruct teaching staff in their positive psychology specialties (Seligman et al., 2009). The Heads of Faculty of GGS embraced the programme and agreed to take one lesson from every 10-day (2-week) cycle and allocate it to positive education. The Penn Resiliency Program (PRP; Gillham, Jaycox, Reivich, Seligman, & Silver, 1990) and the Strath Haven Positive Psychology Curriculum (Seligman et al., 2009) were used as guidelines in creating the Model for Positive Education that is now used at GGS today.

The Model for Positive Education

The Model for Positive Education facilitates the implementation of positive psychology within the school setting (Norrish, 2015). It is visually depicted as a circle with six extending "leaves" supported by character strengths. At the inner core of the circle is "Flourish" (see Fig. 6). The leaves represent the six domains of positive psychology: positive relationships, positive emotion, positive health, positive engagement, positive accomplishment and positive purpose (Norrish, 2015). These six domains are viewed as "the pillars of flourishing" and are linked together by character strengths, which form the foundation on which each domain can be developed (Norrish, 2015). This model is an adaptation of Seligman's

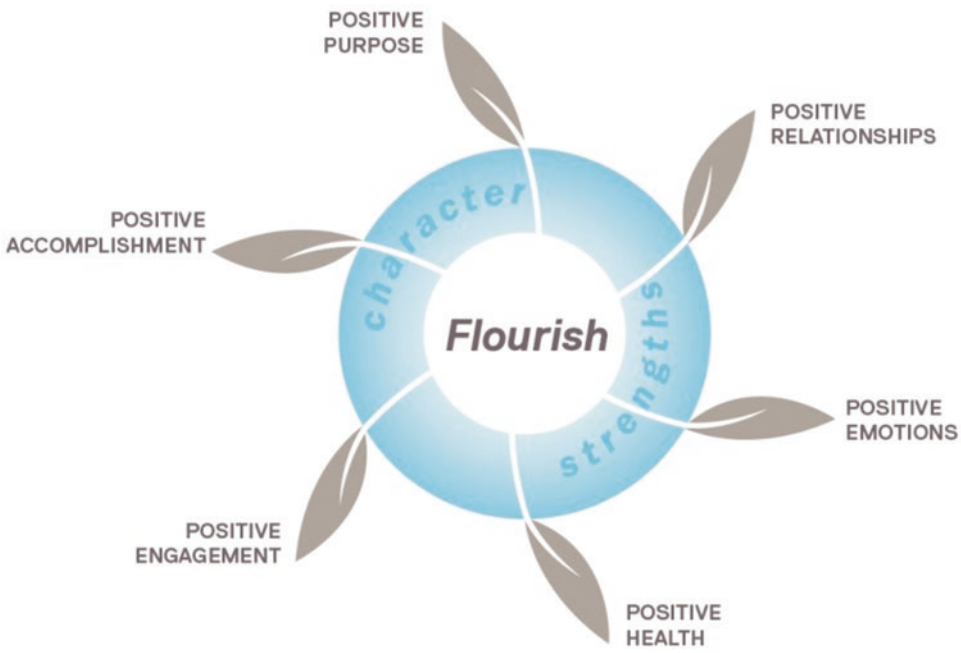

Fig. 6 The Geelong Grammar School Model for Positive Psychology

PERMA model (*P*ositive emotions, *E*ngagement, *R*elationships, *M*eaning and *A*ccomplishment; Seligman, 2011) with the addition of positive health.

The positive relationships domain recognises the importance of strong relationships and feeling connected to others for wellbeing. This domain aims to help students develop social and emotional skills that nurture their relationships with themselves and others (Norrish, 2015).

The positive emotion domain recognises that the feelings of students and staff have a significant effect on their school experience and learning. This domain aims to enable students and staff to develop a better understanding of their emotions and those of others (Norrish, 2015).

The positive health domain focuses on assisting students and staff to develop habits for physical and psychological health. In addition to promoting the usual healthy behaviours (i.e. nutrition, exercise, sleep), mindfulness and resilience skills are also supported in this domain. Mindfulness, or attending to the present moment, is an evidenced-based approach that supports health and wellbeing and has a beneficial impact on student learning (Burke, 2010).

The positive engagement domain encourages students and staff to completely immerse themselves in activities and understand the impact it has on an individual wellbeing (Norrish, 2015). The aim is for students and staff to find sources of interest and passion inside and outside of the classroom in order to help them develop flourishing lives.

Positive accomplishment aims to help students and staff achieve meaningful and rewarding outcomes in their lives, both academically as well as in the community (Norrish, 2015). This domain enables students and staff to strive for goals that are rewarding to the self and benefit the community. Members of the school community are encouraged to embrace challenges with determination and a willingness to learn from their experiences.

The positive purpose domain involves serving something greater than the self and engaging in activities that help others (Norrish, 2015). It also recognises that belonging to a close and support-

ive school community serves as a protective factor for mental and physical health (Norrish, 2015).

The Model for Positive Psychology is implemented on four levels, described as "learn it", "live it", "teach it" and "embed it" (Norrish, 2015, p. 34). The school staff "learn" about positive psychology concepts during training sessions and are encouraged to "live" by the principles by modelling the behaviours in their interactions with others. "Teach it" refers to student learning about positive education through "implicit" and "explicit" methods. "Explicit" learning refers to positive psychology classes that consist of lessons specifically designed to teach wellbeing (Norrish, 2015). Some of these lessons involved writing gratitude letters and keeping a blessings journal. The "implicit" teaching of positive education refers to the infusion of wellbeing concepts across academic courses by adapting existing curricula and tailoring assignments. For example, this can be done by identifying different character strengths in the characters of a book that is being read in an English class. "Embed it" refers to creating a school culture and community for wellbeing and flourishing by weaving positive practices into daily life (Norrish, 2015). These four levels are dynamic in that they are constantly evolving and influencing each other.

After the initial implementation of positive education at GGS, students from Year 7, 9 and 11 completed a survey assessing their level of wellbeing. The Australian Council for Educational Research (ACER) Social and Emotional Well-Being Survey was designed to provide Australian schools with empirically validated tools for assessing the wellbeing of students (Bernard, Stephanou, & Urbach, 2011). Results indicated that the students at GGS had social and emotional wellbeing scores that were significantly above the national average (Bernard et al., 2011). Compared with 21 % of the national sample, 37 % of students reported wellbeing levels at a very high or the highest level. Students reported strong feelings of belonging, connectedness and safety. The Positive Education model in Australia, therefore, shows the importance of using children's strengths for increasing wellbeing and improving academic performance. It also underscores the need for school psychologists to help youth not just make their lives less bad but to also make them better.

Ethical Obligations

School psychologists strive to make changes in schools and community systems that will help children and their families. They advocate for school practices that are in the best interests of children and that protect the rights of students and parents (National Association of School Psychologists, Principles for Professional Ethics, 2010). According to the ethical code of the National Association of School Psychologists (NASP), school psychologists are "obligated to apply their professional expertise to promote improvement in the quality of life for children, their families and the community as a whole" (NASP, Principles for Professional Ethics, 2010, p.12). One of the basic tenets of NASP's Principles for Professional Ethics is to "at the very least do no harm" (p. 2). According to the Australian Psychological Society (APS) Code of Ethics, psychologists must ensure that they are competent to deliver the psychological services they provide. They, too, are required to provide psychological services to benefit, and not to harm, children and their families. This document, along with the Framework for the Effective Delivery of School Psychological Services, was created to promote a more unified and national approach to the practice of school psychology in Australian schools.

Psychology has a history of approaching ethics from a rule-based perspective (Handelsman, Knapp, & Gottlieb, 2009). For example, the American Psychological Association's (APA) Ethics Code was developed with the intention of focusing on problematic behaviours, and ethics training is often designed to help psychologists protect themselves from ethics complaints and lawsuits. Handelsman et al. (2009) wrote that the "current notions of professional ethics focus too heavily on avoiding or punishing misconduct rather than promoting the highest ethical standard" (p.732). They proposed that the profession refocus its efforts in the direction of what they

termed "positive ethics". Such a positive focus might help psychologists consider ethical issues in a broader context that could contribute to better decision-making and better integration of professional rules with personal principles and values (Handelsman et al., 2009).

Ethical practices for school psychologists, we believe, should be guided by a positive psychology model whereby the goal for school psychologists should be to go beyond "doing no harm" and instead include a focus on "doing good". Indeed, beyond helping children avoid poor functioning in schools and at home, school psychologists should strive to help students attain optimal functioning in these settings. Because school psychologists are concerned with the *overall* welfare of a student, they should provide services that help children cope with weaknesses *and* build strengths. By following a positive psychology model to ethics, school psychologists would help students prevent and address academic and behaviour problems *as well as* enhance their competence and wellbeing. Focusing solely on fixing problems once they arise is a reactive approach that does not have a student's best interest in mind. The two-pronged approach we describe here, whereby weaknesses *and* strengths are addressed, is a proactive approach that will help children become resilient and thus more likely to flourish academically, socially and emotionally.

What Can Parents Do?

We are now conducting a study examining the relation between children and adolescent's gratitude and specific parenting practices and home environment variables. Preliminary analyses indicate that grateful children and adolescents tend to have parents who model and value grateful expression at home, spend a lot of time with them and who have warm, close relationships with them (Ruscio, Froh, & Rappa, 2015). Aside from these data, there are no known studies examining the relation between children's gratitude and parenting practices. We therefore provide the below list of scientifically informed strategies (Froh & Bono, 2014) as a springboard for future research and resource for adults working with children and adolescents.

1. **Make raising a grateful child a priority**. Raising a grateful child is a life-long commitment. So parents should be patient and continue to put forth effort the entire time they are raising their child.
2. **Model and teach gratitude**. Children learn through watching their parent's actions. Therefore, use language that emphasises grateful thinking (e.g. blessed, blessing, thankful, appreciative, etc.). Write thank-you letters frequently and share this grateful expression with your child so they can begin to understand the importance of beneficial social exchanges. Provide small gifts and thanks to others to reciprocate favours. Teach your child how to appraise benefits that they have received from others.
3. **Spend time with your child**. Interact with your child frequently, for extended periods of time, and savour moments shared. Remain curious about their interests and beliefs and act as if each moment spent with them is the first time you are interacting with them.
4. **Be mindful when with your child**. Be present, both physically *and* mentally, when with your child. Put away your smartphone, however tough that may be, and remain fully absorbed in the moment. Being mindful of your child and your experience with her will enhance your empathy towards her. This modelling of empathy will help her grow into an empathic, grounded adult.
5. **Support your child's autonomy**. Implement an authoritative, or democratic, parenting style by responding to your child's needs while also encouraging him to initiate his own interests and activities. This allows him to accept responsibility for his actions while also learning about moral decision-making.
6. **Use children's strengths to fuel gratitude**. After learning about your child's unique strengths, encourage her to utilise them. This will help her to identify specific interests and passions, thus drawing more poten-

tial benefactors for her to be grateful for. Parents should also encourage children to apply their strengths when helping and being kind to others because it will make their generosity more authentic, thus helping to strengthen their relationship with the beneficiary.

7. **Help focus and support children to achieve intrinsic goals**. Encourage children to pursue intrinsic, versus extrinsic, goals by savouring their ongoing accomplishments with them along the way. Doing so will help to promote children's competency, autonomy and belongingness. Encouraging children to express thanks to those who have helped them achieve their accomplishments will also instil a sense of gratitude.
8. **Encourage helping others and generosity**. Encouraging children to be kind to others not only helps them to further appreciate kind acts done for them, but it also strengthens their interpersonal relationships. Teach children how to be generous and help others by modelling these acts for them in day-to-day activities or through unstructured play.
9. **Help children nurture their relationships**. Teach children that relationships matter through modelling positive social behaviours and encourage children to be cooperative, kind and thankful to others. Help children to savour their relationships in the past, present and future. Further, help children create and nurture relationships beyond family and friends, including mentors such as teachers, coaches and clergy. This will give children the social capital needed to find their sense of purpose.
10. **Help children find what matters to them**. Help children find a purpose through encouraging them to learn more about their interests and passions. Encourage children to harbour their strengths and interests in novel and creative ways. When children are able to develop a purpose in life, they can experience the deepest sense of gratitude, as they have something larger than themselves to be committed to and grateful for.

Future Implications

The three traditional school-based gratitude interventions we discussed are the only empirically supported interventions we know exist (Froh et al., 2008; 2009; 2014). Aside from the recommendation that new, more powerful interventions be created, we think that more work is needed with the interventions that have already been tested. First, we need to start examining moderators. Girls tend to be more grateful than boys, but boys seem to derive more benefit from expressing gratitude (Froh, et al., 2009). So would girls or boys benefit more from keeping a gratitude journal? Further, gratitude seems to solidify between the ages of 7 and 10. So will older children get more out of gratitude interventions compared to younger children?

Second, we need to better examine the ideal duration of gratitude interventions. In Study 1 in Froh et al. (2014), children who received the gratitude curriculum daily for 1 week reported more gratitude than controls, but the effect size was small. In Study 2 in Froh et al. (2014), children who received the same five-session gratitude curriculum weekly for 5 weeks reported more gratitude than controls, yielding a medium effect size. These studies suggest that giving the gratitude curriculum weekly is better than daily. But these are only two studies; they need to be replicated.

Another area of focus is the measurement of gratitude in children. Adult measures can be used with adolescents, but more appropriate measurement tools for assessing gratitude in children would be extremely valuable for improving basic and applied research (Froh, et al., 2011). Such scientific tools currently do not exist.

We have been involved in one study, however, that starts to address this empirical gap. Specifically, we are testing three self-report measures, based on modified versions of the Gratitude Questionnaire-6 (McCullough et al., 2002), for measuring gratitude in youth that uses age-appropriate wording and formatting: (1) a middle childhood measure for 8–11 year olds, (2) an adolescent measure for 12–16 year olds that is also being used to explore parental and peer determinants of gratitude and 3) a parental report

scale for measuring gratitude in children (Bono, Froh, Krakauer, & Moretta, 2014).

Though such scales will undoubtedly help improve the assessment of gratitude in youth greatly, an additional measurement tool that would be important for assessing gratitude in youth would target even earlier ages. Specifically, measuring gratitude as soon as it emerges in development would be advantageous. We expect that a measure targeting children between ages 4 and 7 would be helpful because genuine gratitude very likely does not exist before theory of mind develops to a certain degree, and this typically occurs for a majority of children from ages 4 to 5 (Wimmer & Perner, 1983). Thus, the addition of such measurement instruments—for assessing gratitude in early childhood, middle childhood and early to mid-adolescence—would help advance basic research by improving the understanding of gratitude in terms of its developmental determinants and consequences, and it would advance applied research by helping to identify best practices for promoting gratitude in these different age groups.

Conclusion

When parents and teachers are asked, "What do schools teach?" Common responses include "thinking skills", "achievement", "test taking" and the like. When parents and teachers are asked, "What do you want for children?" Common responses include "happiness", "fulfilment", "purpose" and the like. Unfortunately, these responses typically do not overlap. But it does not have to. As we saw with the Australian Model for Positive Education, children can learn reading, writing and arithmetic *as well as* how to be happy, how to use their strengths and how to become resilient. If we want to make our children's lives and the future brighter, we must help our children thrive, not just academically but also emotionally, socially and spiritually. If we are successful, our homes, schools and communities will flourish—and everyone will be grateful.

Test Yourself Quiz

1. What are three gratitude interventions and how do they relate to student wellbeing?
2. What are the only three empirically validated scales that can currently be used to assess gratitude in students?
3. What are the six domains of the Model for Positive Psychology in the Australian school system and what do they represent?
4. What are the four levels on which the Model for Positive Psychology in the Australian school system is implemented?
5. What are the ten scientifically informed strategies that parents can use to foster gratitude in their children?

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School Psychologists in the Digital Age

William Pfohl and Laura Jellins

Overview

Technology is profoundly changing the way we live, learn, work and interact with each other. Sherry Turkle, a psychologist and Professor at MIT who investigates the intersection of digital technology and human relationships describes modern technology as 'a phantom limb' because it is so much a part of us (Turkle, 2011).

Integrating technology into practice is relatively new in the field of School Psychology. Only a handful of publications (predominantly by American authors in the context of the American school systems) exist that outline the variety of technologies available specifically for school psychologists and their work in schools (e.g. Cummings, 2011; Florell, 2011; Pfohl & Jarmuz-Smith, 2014). The ways that technology can assist practitioners or engage students in educational settings, as well as the impact that technology use has on service delivery in schools appears to be increasing at a rapid rate. In addition, the very nature of rapid advances means that by the time this handbook is published, many more technology tools that may be relevant to school psychology practice will have been developed and the literature will forever be attempting to keep up with the pace of new developments. Professionally, school psychologists have an obligation to keep up-to-date in the uses of technology and implications for practice. Much like a school psychologist would use the most recent version of an assessment instrument/manual; they need to be current in technology.

Australia is certainly leading the way in the development of e-mental health programs (Jorm, Morgan, & Malhi, 2013) as well as research at the intersection of youth mental health and technology (e.g. the work of the Young and Well Cooperative Research Centre (YWCRC detailed below). Hopefully, this interest and the increasing evidence base of positive findings will help to promote the implementation of innovative technologies in addressing problems faced by students and educators in our schools.

This chapter will focus on the use of technology in psychological assessments and mental health interventions, as well as consider the ethical issues relevant to the use of technology in school psychological practice in Australian school contexts. It will identify a number of key resources and references for the reader to utilise in their own work in schools. These key references allow the reader to gain further background information beyond the scope of this chapter as well as explore important topics in depth with the

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aim to help practitioners make informed decisions when implementing technologies in their practice. Understanding a 'best practice' model will allow school psychologists to successfully integrate technology into their existing practices.

Context for Technology in School Psychology Practice

There is a broad range of technology tools that can enhance all aspects of school psychologists' role in line with the Australian Psychological Society's (2013) *Framework for the Effective Delivery of School Psychological Services*. Technology tools can assist with the direct client work outlined in this document such as psychological, educational and behavioural assessments as well as psychological treatment and counselling. There are also technologies that aid in indirect, whole school and universal interventions in line with the World Health Organization's (1994) multi-tiered conceptual framework of service. Similarly, Rickwood's (2012) e-spectrum model of interventions helps practitioners conceptualise interventions in the electronic sphere spanning promotion, prevention, early intervention, treatment and recovery specifically in regard to youth mental health.

Before outlining the ways technology can be used in school psychology (i.e., the *what* and *how*), thought must be given to *why* there is a need to use technology in our practice. Other than keeping abreast with recent developments in the psychological knowledge base, there appears to be a number of significant factors driving school psychologists to consider incorporating technologies.

First, young people operate in a technology-rich world. Adolescents today in the western world have never known a world without mobile phones or computers in their schools. They rely on information they access via the Internet, whether this information is accurate or not. They are increasingly consulting with 'Dr Google' as the first port of call (Campbell & Robards, 2013; Stasiak & Merry, 2013) and as a profession it is imperative that we have a pivotal role in developing this information source to ensure that young people can access evidence-based psychological information. Caspar (2004) writes 'the world has changed, and in a dramatically changing world of clinical psychology/psychotherapy does not have a choice of standing still' (p. 222).

Second, the Internet provides our young people with a service that is not governed by the school day or school holidays. It is a 24/7 service. As Australian psychologist, Michael Carr-Gregg says:

> I can't be there when they are having an episode, but technology can. It's low cost, which is important as young people tend to be price sensitive. Technologies enable [the psychologist] to communicate with young people and for them to communicate with [the psychologist]. Plus technology is a part of their world and what they are doing day to day. It's the way it is and it's how they communicate, and anyone working in adolescent health really needs to be thinking about working this way (M. Carr-Gregg, personal communication, September 22, 2014).

Third, from an epidemiological and public health perspective, there are significant numbers of students seeking school psychology services and a limited amount of resources available, so how can technology help us to meet service demands? 'Many school psychologists report that they are unable to fulfil all the activities that may be demanded of them in the time available' (APS, 2013, p. 13). Whilst there are differences between and within jurisdictions in Australia, the school psychologist to student ratio is approximately 1:1,500 (APACS, 2013) with professional associations currently recommending a ratio of 1:500 (APS, 2013). Technology can help us to address personnel shortages and assist us in our role to 'increase our efficiency, productivity, accountability, and in turn enhance our effectiveness, to enable us to carry out tasks that would not have been otherwise possible' (Jellins, 2013, p. 4).

Fourth, technology advances by test publishers are having a direct impact on school psychologists' practices. For example, Pearson Clinical (formerly known as PsychCorp www.pearsonclinical.com.au) has introduced their cognitive assessment system to be used in a 'tablet' format

(called *Q-interactive* http://www.helloq.com.au). New applications or 'apps' are being introduced regularly (e.g. *School Psychologist Toolkit* and *Behavioral Lens*). These can be obtained and evaluated from the APPS centre for either Apple or Android. The role of school psychologists will forever be tied, like everyone else, to advances in technology.

An explanation of the fundamental components of technology, that is, hardware, software and connectivity upon which all other tools operate, is also succinctly provided by Pfohl and Jarmuz-Smith's (2014) *Best Practices in Using Technology* publication in the most recent edition of NASP's Best Practices series. The chapter offers in depth descriptions written by school psychologists for school psychologists, and as such, takes into account the specifics of practice in American school settings. The chapter ranges from considerations when choosing a computer to software compatibility and to an in-depth explanation of cloud computing. For those interested in the early history of computing and its relationship with psychological practice, Tazeau and Fortungo (2015) outline important milestones in the evolution of e-psychology with particular reference to Cognitive Behaviour Therapy.

Enhancing Professional Productivity

School psychologists can increase productivity by considering mobile apps, cloud storage and archival storage. *Dropbox*, whilst not secure for confidential information, can be a convenient place to store non-confidential files. *Evernote* can schedule, share information, keep track of contacts, notes of events and To Do lists all in one package. *PAR Toolkit* is free with a stopwatch, Normal Curve, z-Score converter and other handy tools. *Army Knife for Android* has many tools for day-to-day activities (such as stopwatch, conversion, timer, flashlight). A scanning app can keep track of receipts and other files. Mileage logs and travel expense apps help to organise trip data. Learning about medications and diseases through *Medscape* or *Epocrates* apps are helpful as well. *Quick Office Pro* is a valuable substitute for Microsoft Office. *School Psychology Toolkit* might be useful as well (contains score converter, stopwatch, behavioural observation rubric, etc.). With new technologies, school psychologists can increase their effectiveness and productivity by capitalising on devices they may already have.

Assessment

Technologies supporting psychological, educational and behavioural assessment have existed for some time now but have not consistently been adopted by psychology services in Australia (Jellins, 2013). One example is computerised scoring assistants and report generating software. Although these have been available for a variety of assessment instruments, there have been challenges in implementing them in the context of a school network system. For example, in the past, many of these programs needed to be loaded onto one or more computers via CD-ROM. This circumstance created accessibility issues with school psychologists working in a cluster of schools, using different computers at different schools sites. Additionally, restrictions with some government-owned computers presented barriers to installing software. It is likely that the cost of tools and mobility of school psychologists slowed the adoption of new technologies. Anecdotally, professional training in the technology domain has also been limited, and this has most likely restricted broader adoption.

Recently, with the accessibility of the Internet and particularly wireless connections, publishers frequently used by school psychologists have developed online platforms for administering and/or scoring tests on-screen in the school psychologist's office or remotely online via a secure web link including: Pearson Clinical, PAR Assessment, Western Psychological Services and Multi-Health Systems (MHS) products available through Psychological Assessments Australia (http://www.psychassessments.com.au); and ACER Psychology (https://www.acer.edu.au/assessment/assessment-administrators).

School psychologists in Canberra, Australia, are currently in the early stages of a trial incorporating online assessment tools in their practice in schools (Jellins, 2015). This pilot project is providing access to a 'virtual psychological test library' with digital versions of assessment tools currently used in traditional paper-and-pencil formats. It is expected that digital assessment tools will make a difference to school psychology practice by increasing accessibility to tests (through greater portability), allowing practitioners to service more students (through greater efficiency) and enabling practitioners to provide more comprehensive and up-to-date assessments (through building capacity and with greater accuracy of standardisation and accountability). Furthermore, central goals of this initiative include: facilitating a more seamless model of service provision; giving practitioners hands-on experience to identify potential areas of need in training; and to inform the development of practice guidelines.

The first phase of the trial is focused on the logistics of setting up access and accounts. Different publishers use different platforms or interfaces to set up accounts for single and multi-user teams of school psychologists; hence, the initial part of the trial involves understanding and training for these different systems in the school context. For example, *Q-global* through Pearson Clinical requires test-scoring software for tools to be purchased initially, and then the account for the team leader is assigned. For access to MHS products through Psychological Assessments Australia, the account is established, then proformas are ordered through the USA and loaded onto the account website by the Australian distributor. Once these introductory steps are taken, the system operates more seamlessly than the conventional paper-and-pencil format of assessments, which involves ordering proformas, waiting for delivery and the time-consuming scoring process. It appears that investing in the short term (i.e., time to investigate and set-up time) will be rewarding in the long term (i.e., save individual practitioners' time on an ongoing basis). One colleague recently commented 'I just did my first online checklist with a teacher—easy to use from the link and then generated a 22-page report online. That just saved me 1–2 hours!'. Initially, the cost will be similar to paper-and-pencil tests. The software can be updated in real time. The key to its success will be reliable Internet or Wi-Fi access, particularly in rural settings. In addition, it is acknowledged that lengthy interpretive reports need to be used with caution and subjected to clinical scrutiny as to the appropriateness of report narratives and recommendations to individual clients (Australian Psychological Society & Speech Pathology Australia, 2014).

Saving time and freeing up practitioner resources to service more students is not the only advantage of more sophisticated digital assessment tools. This mode also gives rise to ethical questions—if school psychologists have access to a greater variety of assessment tools, can they make better clinical decisions about the best tools to use for individual clients? That is, they are not limited only by the tools they can access or the time they have to administer and score tests. In addition, technology has the potential to integrate data for better decisions.

With regard to integrated assessment options, Pearson has developed interactive versions of some of their instruments, such as the Wechsler cognitive and some neuropsychological instruments the *Q-interactive* platform. These digital versions involve equipping the student with an iPad, which serves as a stimulus book and allows responses for some subtests to be captured and transmitted to the examiner's iPad via Bluetooth. The examiner's iPad serves as the 'electronic easel' with the proforma, which is embedded with starting points, basals, reversals, ceilings and response options, a stopwatch, a microphone to temporarily capture a voice recording until responses are scored completely, and mechanisms to note verbatim responses and behavioural observations. The only additional materials used in the assessment process are materials such as the blocks and response booklets for paper-and-pencil tasks.

The publisher has provided equivalency data confirming that the test can be transferred in digital format. Whilst these results align with the finding that differences between traditional

paper-and-pencil formats and the computer-assisted version are not significant, that is, validity in the two modes is comparable (Butcher, Perry, & Hahn, 2004), the mode of administration is quite different to simply transferring the likes of a checklist onto a computer screen and thus, it will be important for the integrity of the instruments and the confidence of practitioners for these to be independently evaluated.

Informal communication with test publishers over the past few years indicates that most companies will be incorporating digital technology formats using computers or tablets. Scoring will be through an encrypted connection and stored on a 'cloud' where data is stored on servers outside the individual computer/device. Access to the assessment and scoring platform is password protected and each assessor will have a unique login and password. This means that accounts will be kept separate, even though the devices may be shared. This process protects each psychologist and their unique data set of confidential client information. Most new data will be stored on a cloud (e.g. Apple iCloud, Dropbox, Google Drive) and has the following advantages and disadvantages:

Advantages	Disadvantages
• Allows access to and manipulation of files • Information accessed and shared from anywhere • Reduces risks of files being lost or stolen	• Privacy and security of files (to be addressed in the Ethical Considerations section below)

Using Technology to Deliver Psychological Interventions

Online therapies are now considered a viable adolescent treatment option for a range of clinical groups with a variety of psychological disorders (Barak, Hen, Boniel-Nissim, & Shapira, 2008) including anxiety (e.g. Christensen, Batterham & Calear, 2014; March, Spence, & Donovan, 2009) and depression (e.g. Farrer, Christensen, Griffiths & Mackinnon, 2011).

> There are multiple advantages of computer-assisted delivery of therapy such as a greater degree of intervention fidelity, customised treatments, reduced costs and increased access to services to name a few; but also many important ethical considerations including confidentiality, risks of anonymity and the evidence base of interventions (Jellins, 2013, p. 27).

Traditionally developed and researched in adult populations, now more and more child- and adolescent-friendly programs are being developed with positive research findings emerging (e.g. Calear & Christensen, 2010). Online therapies available encompass interventions that are completely individualised (synchronous formats, e.g. e-counselling services provided by the Australian programs eHeadspace https://www.eheadspace.org.au and KidsHelpline http://www.kidshelp.com.au/teens/get-help/web-counselling/), or involve working through modules (self-guided formats, e.g. including but not limited to MoodGYM https://moodgym.anu.edu.au/ and the BRAVE program https://brave4you.psy.uq.edu.au). Some programs involve parent components and include different degrees and modes of therapist involvement.

As research emerges, key reference groups will help keep practitioners informed about the latest developments. The Australian National University's Beacon project (https://beacon.anu.edu.au/users/home) is an educational portal that facilitates access to online mental and physical health interventions. Independent reviewers rate the interventions using a 'smiley' system ranging from 'no evidence at the moment' to 'there is evidence that the site works' and 'more conclusive studies are needed' through to 'there is very strong evidence from the research literature that the site works'. Australia's Department of Health and Ageing also maintains a portal http://www.mindhealthconnect.org.au/ that individualises access to relevant evidence-based e-health applications and resources for youth amongst other clientele. In addition, the YWCRC http://www.youngandwellcrc.org.au/ works collectively with over 75 partner organisations from not-for-profit, academic, governments and corporate sectors to conduct research, develop innovative technologies, promote and disseminate findings, and eval-

uate tools and programs to improve the mental health and well-being of young people. A number of key projects and references such as the interactive online e-tool for assessment or practice guides may be of particular relevance to school psychologists and are highly applicable to the school context.

Anecdotally school psychologists across Australia are familiar with some online interventions and are beginning to use different apps to complement their work in counselling or in classrooms. To our knowledge, only a few school psychologists have implemented initiatives that utilise these programs in the broader service delivery model whereby an online or computer-assisted therapy is used for preventative or targeted interventions in the school context.

School psychologists who use apps as an adjunct to therapy may be interested in perusing the list of apps that Michael Carr-Gregg uses with his clients (see Appendix). Although most of these apps are yet to be subjected to randomised controlled trials and hence their effectiveness to be determined scientifically, many have evolved from a strong theoretical base. One of the YWCRC projects of relevance to this rapidly developing sector is the Mobile Application Rating Scale (MARS; Hides et al., 2014) project. MARS is a tool for assessing the quality of health mobile applications by guiding practitioners through a decision-making process about whether or not to implement or recommend an app. Four main criteria are rated: engagement, functionality, aesthetics and information, and training videos are provided on the YWCRC YouTube channel. Ideally, practitioners could share their ratings of various apps in some kind of electronic database to expand the collective knowledge as developments arise.

Ethical Considerations

The speed of innovation exceeds the rate of development of professional standards and ethical guidelines required for school-based practice. This section will outline potential issues in using technology in school psychologists' practice: the benefits, limitations and suggestions for practice. These may include: lost data, breaches of confidentiality, issues of data ownership, informed consent, access to records, inadequate standardisation and incompetent use. A 'best practice' approach is recommended here as new laws and regulations will be forthcoming as technology catches up with older legislation.

Ethical guidelines set the minimum requirement for professional practices. Ethics are set by organisations whilst laws may change or may even override ethical practices (such as in the case of self-harm or risk of harm to others which allows one to break confidentiality). As technology becomes more embedded into school psychologists' practices, professional standards and ethics may come into conflict with legislation governing the use of technology (Pfohl & Jarmuz-Smith, 2014; J. Younggren, personal communication, 2014). Advances in e-health with the electronic storage and retrieval of personal identifying information may be in conflict with some ethics guidelines over such things as confidentiality. The basic ethical principles that have been part of the psychologist's practice for years will still apply and may require a different understanding when incorporating the use of technology.

The ethical codes of the Australian Guidance and Counselling Association (1997) and the Australian Psychological Society (2007; as adopted by the Psychology Board of Australia AHPRA) have similar and time honoured principles of confidentiality of data, informed consent, competence, assessment practices, record keeping, supervision and research. However, how technology impacts these basic elements can be a question. Many of these principles are embedded in the APS' (2013) *Framework for the Effective Delivery of School Psychological Services*; however, little attention is given to using technology within this guideline.

Technology will only impact psychological practices more and as such consideration of the ethical implications of its use is warranted. Using technology for supervision, distant consultation, counselling, social media and communications will challenge the practices using current think-

ing and current standards and guidelines. Most technology ethics questions centre on confidentiality and privacy and the impact it has on the client's well-being. Overall the following six questions can serve as a guide for 'best practice' and these will be discussed in depth below:

- Who owns the information?
- Where is the information stored?
- How is the information stored?
- How long will the information be stored?
- Who has access to the information?
- What safeguards are in place to protect client and their data (Personal Identifying Information) such as encryption and passwords?

'Best Practices' for Using Technology

In answering the above questions, determining who 'owns' the student data is important, since many schools, organisations (e.g. Google) and third party vendors will be storing school records, testing protocols (e.g. Pearson) and possibly using remote storage of individual student reports and their data files. Data files can include written files, scoring protocols, audio files, video files and text/SMS/emails (see Digital Footprint section below). An assumption is that the school psychologist or client or educational entity may 'own' the records, but a third-party vendor by their contract or agreement may also have access or ownership rights to what they store on their servers, which may break confidentiality. Letters of Agreement or other legal contracts may limit who owns the information due to the increased use of cloud technology storage. That is, cloud storage may risk the loss of complete ownership of a student file or data. Third party vendors may want to access data for marketing or 'other' purposes. Originally, Google Docs had this owner issue; when a file was stored on their servers, they claimed it was 'theirs' as ownership was transferred during the storage process. This ownership concern has been resolved as of this writing. Reading the 'Fine Print', 'Agreement' (the 'I Agree' check box) or similar contract is essential for best practices before using any new software, app or storage entity. Previously, student files and data were typically stored in an on-site metal file cabinet or an individual's results were registered on a paper protocol and stored locally. With cloud or mobile device storage increasing, computerised scoring of protocols, storage of reports or use of third party vendor storage, the information storage will not be on-site and may not even be in the same country. The risk of records being compromised may increase as student records are stored by different means and in different locations.

Files and data which are not encrypted are the most vulnerable as anyone can access it without proper authorisation. Other storage issues include using USB drives, portable computers, tablets, etc. where files and data can be lost, corrupted, or compromised. Files and data are now more portable and therefore more vulnerable to be compromised when not stored locally or by safe procedures. Best practices suggest file and data storage is best protected by password and ideally by encryption. Devices and individual files can be encrypted with current technology. Many testing companies now use encrypted distance scoring services and off-site data storage; this requires an ongoing review of policies and procedures by school authorities and school psychologists. Encryption of data from the device to the remote server and back up needs to be a requirement before usage.

Archiving of student records, student files and data, and individual protocols in electronic formats also presents new challenges due to mobility of students and their data. As technology storage and scoring options evolve, companies have set limits on how long this data will be stored on their servers. Some data will be stored 'forever' and some for much briefer periods. Local policies and procedures will need to be developed and regularly updated to retrieve or print this data before the storage time expires. Reading contracts and reviewing storage time limits will be a constant challenge for the school psychologist as students move, transition to other buildings or graduate. Knowing the most current legal and ethical guidelines will be essential.

Protection of student identity, files and data is an ethical and legal responsibility. Many of the new technology options will require extra vigilance to ensure that data and files are seen only by authorised individuals. Other concerns involve protecting materials from being 'leaked', lost, shown on social media or discovered through a data hack/breach. Laws and ethical guidelines state that only authorised individuals can have access to certain protected records, so passwords, encryption and off-site storage issues will need to be addressed by specific local policies and procedures. Procedural safeguards such as encryption, passwords, archiving and access will need to focus on keeping personal data and student identity confidential and out of the public eye.

As technology procedures and new advances are implemented by schools, organisations, third party vendors and testing companies, a regular review of student and data safety and protection policies and procedures must be part of the school psychologists' best practices. School psychologists need to be involved in the development of these 'best practice' policies and procedures. Informed consent with parents and teachers about student data protection and storage is part of this process.

Digital Footprint

Understanding that our 'digital footprint' (the trail of information or data collected online either knowingly or unknowingly by Internet users) is growing both personally and professionally and is relevant. At times, these lines can be indistinct and may place a school psychologist at risk for an ethical violation. Many times, a school psychologist will use the same device for both personal and professional work without realising that these uses can be blurred. Sharing personal information whilst at work or vice versa can lead to professional data being shared inadvertently or accidentally. Talking about a client, supervisor or family on email, Facebook or another social media site is an ethical problem. Leaving the browser history intact can allow others to follow the trail of website contacts which may also be problematic. Skype, owned by Microsoft, keeps records of all calls permanently. Laws covering storage, access and use change regularly; as do the agreements of data security. Most people do not read the 'fine print' that each device/software/app has before one uses it. Some examples of a 'digital footprint' are as follows: Facebook—Timeline, Social Media; Online Photos— tagging; Smart phone—location; Google—Locator; Skype/VoIP (Voice over Internet Protocol); Emails; and browsing history.

School psychologists must be aware of their 'digital footprint' whether it is emails, videos, text messages/SMS, etc. This footprint identifies the school psychologist as the maker or recipient of each interaction. It can be traced and awareness of this process is the first step in protecting confidential data.

Hardware

Computers, USB devices, tablets, smartphones or anything that connects to the Internet has the potential to violate any of the principles mentioned above. Historically, filing cabinets were the storage 'hardware' and records were kept under lock and key and stored in an individual file folder. Paper-and-pencil instruments were the assessment device and a phone call to a parent or teacher ensured confidential communication. Supervision was face to face. Research was typically done by collecting data in person in the laboratory or life environment. Only those with a 'need to know' had access to records and reports. Technology can make all these situations more complicated. Hardware can store records and materials on hard drives or USB memory sticks. The information can be stored on a 'cloud' where access is not by a key but a password or code. Records, reports and protocols can be stored and carried anywhere. This mobility of storage can make information more vulnerable due to the potential for loss, deterioration (not accessible) and breach of confidentiality.

Hardware and the data stored on it must be secure. The principles of confidentiality, record storage and informed consent apply. Access of records by other professionals (e.g. psychologists, supervisors, educators) and parents must be assured, whilst protecting the rights of children/

adolescents. This was much easier with a filing cabinet and not as portable. Hardware does not automatically come with the necessary protections for data. The device must be set up to ensure protection. Devices that are connected to a local area network (LAN) or the Internet will require extra considerations. Stand-alone units need to be set up to protect the data on it. What follows below are some procedural guidelines and suggestions to ensure confidentiality of records and ethical practice. Current and future laws and regulations may apply as well.

First of all, each device needs to be password protected. This is a barrier from someone being able to access data without reason and will protect the information if the device is lost or stolen. It also protects information from others such as family, children and strangers from picking up a device and seeing the confidential information. Using different passwords for different accounts helps ensure privacy. A better solution is to have the data encrypted with a cipher (password). It scrambles the data into computer 'gibberish' that cannot be used without the cipher. This is a two-step process for some devices—password then cipher. Some newer devices such as smartphones can do both at once. Encryption is the safest way to store or protect data at this time. All devices need to have a Firewall. This will have to be initialised by the owner (e.g. psychologist or school district), depending on the original manufacturer or software obtained from a third-party company (e.g. McAfee, Microsoft Essential Security/Defender). Making the screen go blank after a minute or so when it is not being used and having to log back in, whilst annoying, is safe and ethical practice.

Software

Each device has an operating system such as Windows, Apple, Linux and Android. Operating systems are updated regularly to fix various problems and particularly security patches. Setting the device for automatic updates to the operating system is recommended. Antivirus and spam filtering software are strongly recommended to protect the operating systems from being attacked by viruses and malware. The software is often freely available or can be purchased from a third party and is essential to keep corruption and other Internet connected devices reliable. These recommended steps are in the spirit of best practices for securing data and avoiding loss of data.

Scoring software is common now. The most current version for the practitioner is expected to be used, so regular updating and searches for software updates need to be done. Using out-of-date scoring software can do harm. Updating software needs to be viewed the same as a new edition of an assessment manual. In technology terms, these updates can be quite frequent. Going to the 'Help' menu for most software or 'About' button will indicate the version and in some cases whether the software is up to date. School psychologists should frequently visit the publisher's website for software updates. Though as mentioned previously, the new era of online scoring offers access to the instruments via Internet-connected devices and this overcomes some of the challenges with updating programs as these processes occur automatically on publishers' platforms.

Data Management and Storage

School psychologists are faced with more possibilities for storing their data and therefore need a data management plan. The questions are: *where* to store; *what* to store; *how* to store; and *who* has access. *Where* to store can be on the device itself, on a local hard drive, on a Local Area Network (LAN) or on a 'cloud'. All have particular issues and risks unique to each device. Due to the portability of most devices, one significant issue is loss or damage to a device. Hardware is not designed to work forever. Age, environment (e.g. spills, dropping the device) or an out-of-date operating system can shorten a device's useable life. Data storage allows for backing up data that is separate from the device. A backup of one's data is considered minimal. This needs to be in a separate and secure location. A data management plan needs to have a backup plan as part of it. Working with the education department's information technology department will help with this decision.

Making the decision on what to store is critical as many records have to be stored for long periods of time. School psychological files must generally be kept for a minimum of seven years after a student has reached 18 years of age (Australian Psychological Society, 2013). As schools and school systems move towards online storage of files, consideration must be given to the format files are saved in as some current formats may not be available in the future. It is suggested that a generic format RTF, TXT or PDF be used. Long-term storage location and an index to find it will be essential. Indexes need to not have identifying information but codes. Audio and video storage files can be more an issue, as these formats change regularly and they also take up considerably more space. Multiple backups are necessary. Some publishers are using cloud storage and will be keeping the information secure and forever, some may only keep it for shorter periods of time, and some will eliminate it as soon as the task is finished. The data management plan will have to consider all these options. The following is a summary of the potential ethical violations and all codes of professional practice involve these principles:

• Privacy and Security	• Nonmaleficence
• Competence	• Informed Consent
• Confidentiality	• Safety (self-disclosure)

These principles apply but technology can compromise them easily. Additional training in the use of technology enables school psychologists to practice in a competent and secure way. Keeping data confidential is essential. Sending an email/text to a colleague may violate confidentiality when it contains identifying information such as names, teachers, classroom, and the school name. Office copiers, where much work is reproduced, likely have a hard drive keeping a record of every copy made hence compromising security. A dedicated copier which is maintained with the hard drive wiped on a regular basis will be safer. A text message that is viewed by another person for whom it was not intended can break confidentiality. Storing data and information on an unsecured device can be risky. The school psychologist is directly responsible, as in former times, for the protection of a client's data and privacy of client's identity and misinformation about a client or the family.

Students accessing school psychology services need to be informed about how the data is gathered, stored and archived. In regard to informed consent, it is important to consider who will have access to the information gathered. School or practitioner policy guidelines can help clients/families/school personnel be aware of the policy and procedures of data collection and management. Protecting all reports and data from modification by anyone else is an important aspect of best practices. Since emails are not protected or confidential, emailing a file or record to yourself is seen as a potential violation of confidentiality and privacy.

Using open Wi-Fi, such as found in coffee shops, restaurants and Internet hot-spots, where no password or only one password is used for everyone makes that site and server unsecure. Working in such open settings can be a place for theft of passwords, inadvertent disclosure of information or identity or losing data, so extreme caution needs to be taken. Using a personal computer or device for professional activities will allow co-mingling of data. An accidental key stroke can make all data visible or sent to a wrong or unintended person. ‘Reply All’ in an email is also dangerous as information will be sent to everyone. This is not only embarrassing but also a potential liability.

A new computer or a recycled one needs to be ‘Erased’ entirely before and after using it. The operating system is the only software to be on a new or cleaned computer to ensure safety and protection of information. Web browsers (e.g. Chrome, Firefox, Google, Internet Explorer, Mozilla, Safari) all track Internet activities. They also store passwords when the box is checked to remember passwords. Most violations of data on a computer results from clicking on embedded links.

Email Protection

Emails are not confidential and are potentially open to abuse with the release of confidential information. Names, diagnoses, location of child and other personal information are typically found in emails.

Teachers, parents and school psychologists may share a string or thread of emails, which are stored or seen by others. So protecting emails from breaches of data security is best practice. Below are some suggestions for keeping emails safe:

- Use only sanctioned email providers
- Email to only one recipient at a time
- Notify parents prior to using email
- Recommend parents provide personal rather than work emails
- Verify recipient email addresses prior to sending
- Include 'unintended recipient directions'
- Limit confidential information to attachments only
- Utilise password protection on documents
- Tag email communities as 'Confidential'
- Utilise 'Expiration' feature (5 days)
- Mask personal identifiable information

Passwords and Encryption: Reducing the Risks

Passwords and encryption are best practice for the devices used by school psychologists. Using the same password for each account or device will allow others easy access if one account is breached. It is suggested that each email account, bank account and login account have a separate and unique password. This will protect most other accounts, if one is breached. Developing a method for generating passwords is important and the following principles are suggested:

- Use passwords of eight characters or more with mixed types of characters
- Avoid using the same username/password combination for multiple websites
- Use a password manager or app to organise and protect passwords, generate random passwords, and automatically log into websites
- Don't be obvious
- Don't use existing online passwords
- Don't use a regular word
- Mix cases, number, and punctuation
- Change passwords regularly—every 6 months or sooner if compromised
- Don't share passwords
- Create a hierarchy of passwords

Encryption offers a higher level of data protection and is strongly recommended. All Microsoft documents can be encrypted. Word, Excel and PowerPoint files can be encrypted for both Windows- and Apple-based systems. Hard drives and USB devices can be encrypted as well with additional software. Many devices are sold with accompanying encryption software already installed. Encrypting mobile devices such as smartphones is also possible (see manufacturer site for 'how to').

Summary of Potential Ethical Violations

- Facebook—Timeline
- Copiers—hard drive copies
- Faxes—not secure or confidential; no cover sheet
- Lost USB—not password protected or encrypted
- No password protection of data on smartphones
- No firewall on computer; no antivirus program or out of date
- Use of out-of-date software
- 'Reply all' emails
- Administrative access to files; who can modify
- Electronic files and storage; cloud options
- No backup of files
- VoIP—Skype, Google Chat or FaceTime
- Emailing reports/files to your personal email
- File names may be viewed by others when archived or on a cloud

Summary for Keeping Computers or Devices Safe

Keeping your computer safe from problems is relatively easy and can be done on a scheduled basis. The following are suggested for regular maintenance of a computer or device:

- Keep your operating system and software up-to-date
- Install and run current versions of antivirus and spam filtering software
- Only select reputable sites when downloading apps and media from the web; set browser alert
- Generate strong passwords to confound brute-force cracking software and never share them
- In email messages, avoid clicking links and dispose of questionable attachments without opening them
- Always read the fine print before installing software
- Make sure everyone who accesses your computer also knows how to operate safely

Supervision

Technology is becoming a useful tool for supervision. Telemedicine where consultations with clients can take place is advancing quickly. These new technology opportunities are being embraced by health and mental health professionals. In regard to supervision, the Psychology Board of Australia considers real-time videoconferencing under the umbrella of direct face-to-face time and supervision via telephone is acceptable in supervision arrangements excepting the 4+2 internship program for provisional psychologists which requires additional approval for telephone supervision (Psychology Board of Australia, 2013). Best practice concerns are whether the connections are secure and confidential. Skype keeps call data forever and is not considered a secure link. Google Chat keeps data for 6 months and an encryption paradigm is in development, scheduled for completion by the end of 2015. Apple FaceTime is secure and encrypted; however, only between Apple devices. Vsee (www.vsee.com) is another video-based software that appears to be secure or supervision. This option may work better than Skype. Go-To-Meeting and Adobe Connect are expensive, secure and basically safe. The 'fine print' agreements change frequently, and it is recommended that practitioners read them before using or updating any video or other software or apps. Making sure the site is secure, the room is confidential, and that informed consent is obtained will make this option viable for future practices. With the vast distances in Australia, video connections could facilitate contact and may be worthy of consideration.

Conclusions

Technology and the practices of school psychologists are becoming more intertwined. Avoiding the advances in assessment and intervention technology is no longer possible. With the introduction of the Internet, rapid developments in programs for assessment and interventions, and now apps, school psychologists can increase their productivity and effectiveness.

As with anything new, caution is also advised. Learning about 'best practice', that is, using new technology in the best way possible and avoiding ethical and legal dilemmas will be important. School psychologists will have to be proactive and advocate for the ethical use of technology, be mindful of pitfalls to breaches of data and ensure safe storage of that data. They will need to advocate for better technology training, be guided by clear policies for using technology in their practices and inform students, teachers, and parents about their use of technology. New school-based technology policies may need to be advocated for by the school psychologist. Being aware of the positives, operating within a 'best practice' framework and being aware of the potential problems of technology will allow school psychologists to better serve Australian students.

Test Yourself Quiz

1. What are some of the advantages of implementing technology in school psychology practice?
2. Which aspects of the school psychologist's role could be supported by technologies?
3. List 5 'hot spots' where there is potential for unethical practice.
4. Discuss 'best practice' in relation to using technology in school psychology practice.
5. What policies in using technology will help a school psychologist better communicate how technology is used in their practice?

Appendix

Dr. Michael Carr-Greg, renowned child and adolescent psychologist, outlines his favourite technology tools[1] (M. Carr-Gregg, personal communication, September 22, 2014) used with permission:

[1] Some of which are free of charge

What Phone Apps and Online Programs Do You Use with Young People?

Mood Assessment Program: I ask all my patients to complete this web-based program online prior to the first consultation. It's a computerised assessment and diagnostic tool for mood disorders that gives me a thorough breakdown and a quite accurate diagnosis. It helps identify depressive sub-types, improves detection of bipolar disorder, identifies vulnerable personality styles, lifestyle and environmental factors contributing to the depressive illness and provides a rational basis for development of a formulation and treatment plan.

MoodGYM: I use this every single time for cases of depression and anxiety. Together, the client and I use it on synchronised tablets. It's ideal for cognitive-behavioural therapy (CBT).

MoodKit: This smartphone app is the logical CBT follow-up homework for a young client—it's a toolkit for what they can do to improve their mood, recording events and feelings, and rating their mood along the way. They can email me how they are feeling each day or week.

iCope: This was developed by mental health nurses. It offers alternatives to deliberate self-harm by providing practical and easy steps to distract, displace and seek-help, all at the touch of a button and accessible at all times.

Smiling Mind: Young people adore this. Smiling Mind is a meditation app customised by age for anxiety and depression. We also use a skin conductance (galvanic skin response) machine to give visual biofeedback as they listen. Gizmos can help with engagement!

Talking Anxiety: This phone app can help young people and families understand anxiety.

Body Beautiful: A unique iPhone app that promotes positive body image and self-esteem amongst women and girls.

DeepSleep: This app incorporates guided meditation to help overcome insomnia and get to sleep. It can be customised for short or long inductions and has an alarm for waking up.

SuperBetter: A remarkable online game that supports young people to achieve health-related goals by increasing resilience.

Live Happy: A positive psychology app I use in the final stages of therapy.

Pillboxie: This pill reminder app provides useful reminders to take medication.

iCounselor: Incorporates strategies for managing a range of conditions, including anger, obsessive-compulsive disorder (OCD) and depression.

Mnf: Always making excuses for not meditating? This is simply the best way to learn and enjoy mindfulness meditation.

Check-in: This app was developed by beyondblue and aims to give young people the skills, knowledge and some specific strategies to have conversations with their friends about mental health, by helping them develop a tailored, step-by-step 'check-in' plan so they can systematically look after friends that they are worried about. The app also provides useful tips for young people worried about a friend to look after their own mental health, by giving them links to services or tips on who to talk to and how they can debrief after having difficult conversations. The app allows young people to review how the conversation went and give ideas for what to do next, especially if things got tricky. It allows the user to set reminders to follow up and provides links to professional support and words of wisdom from people who've done it before.

FocusUp Pro: This tool allows athletes measure and build concentration skills. It uses concentration number grid exercise to sharpen focus and the ability to enter the peak performance zone. A technique used for decades by Olympic athletes, coaches and sports psychologists; this simple tool helps evaluate and develop awareness of concentration habits to improve. I use FocusUp Pro to help my clients stay calm and focus in the moment rather then get bowled over by anxious or depressed thoughts.

Appreciate a Mate: This is a fun app that instantly generates messages of appreciation. Each message has been individually crafted by 33

graphic artists from around the world. You can shake it, swipe it and mix up the colours before you share them. It has over 50 custom illustrated quotes designed by graphic artists and unique quotes written by young Australians. It integrates with Facebook, Twitter, Instagram and Tumblr to share with friends. Appreciate a Mate was developed as part of Safe and Well Online, a Young and Well CRC project led by the University of South Australia, in conjunction with the University of Western Sydney, Zuni and the Queensland University of Technology.

NovoPsych: This app is designed specifically for psychologists working in the mental health arena who want to administer psychometric tests quickly and accurately with automatic scoring. NovoPsych delivers a series of standardised psychological assessments via an iPad, where clients can complete tests in the office or waiting room by simply tapping the screen. The results are automatically calculated and sent to the clinician, giving access to scores instantly. It also allows you to graph symptoms over time. Use of outcome measures can guide treatment decisions and help clients recognise their own improvements. In fact, research shows that regular use of outcome measures may increase engagement and improve the therapeutic relationship, thereby increasing the efficacy of treatment. Of course, measures are particularly meaningful if feedback is provided in a clear, instant and engaging manner.

Therapy Outcome Management System: This provides instant feedback on outcomes of counselling and therapy, client by client. Psychologists can use this app to improve the quality of care delivered to patients and clients. The app utilises the Outcome Rating Scale (ORS) and Session Rating Scale (SRS) to give client measurements of their progress and the therapeutic relationship. Specifically, tracking outcomes and providing feedback based off of those scores has been shown to have many benefits, including reduction in dropout rates in psychotherapy.

Recharge—Sleep Well, Be Well: This is a personalised 6-week program that helps improve the well-being of young people by focusing on four key areas: (1) A regular wake and sleep time each day, achieved gradually over 6 weeks; (2) An alarm clock that triggers fun activities designed to get you up and out of bed; (3) Increasing their exposure to daylight early in the day, to help reset their body clock; and (4) Encouraging them to increase physical activity, especially within two hours of waking up. By establishing a good sleep/wake routine that includes regular exercise and early daylight exposure will help improve mood, energy, and general well-being as well as helping them sleep better at night. Recharge is the result of a collaboration between ReachOut.com by Inspire Foundation, The University of Sydney's Brain & Mind Research Institute, Inspire Ireland Foundation and the Young and Well CRC.

Headspace: This app builds on mindfulness techniques, which benefit mood, attention and general coping skills for the ups and downs of life. (As a proud member of the Smiling Mind Board, there's no surprises I continue to highly recommend their excellent app for mindfulness too). Available on both Apple iOS and Android, this simple, beautifully designed app gives clients ten short meditations, four brief videos explaining what meditation is and a series of facts and questions. Clients can keep track of how many of the meditations they have listened to and try 10 min a day for 10 days.

Thought Diary Pro: This app is the best of the bunch for me, when it comes to thought-tracking apps based on cognitive behavioural therapy for anxiety and depression. Although it still has limited explanations, Thought Diary Pro keeps track of your negative thoughts to help you spot unhelpful thinking biases and generate alternatives. It is definitely more useful if you are already familiar with the principles of CBT, as a therapy add-on or follow-up tool, for example.

MindShift: This app designed to help teens and young adults cope with anxiety. It can help

them change how they think about anxiety. Rather than trying to avoid anxiety, this app allows them to make an important shift and face it. MindShift help them learn how to relax, develop more helpful ways of thinking and identify active steps that will help them take charge of your anxiety. This app includes strategies to deal with everyday anxiety, as well as specific tools to help them tackle challenging situations.

My Mood Tracker: This app I use to help my clients with depression to keep track of how they feel. It helps them to notice that sad moods do pass and can also potentially help them link their mood to things they do, places they go and people they talk to. My Mood Tracker can collect additional information on sleep patterns, exercise and a whole range of other things. Not as hi-tech as some similar apps, which also measure your location and other phone data, but it's reliable and easy to use.

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Promotion of Leadership and Advocacy in School Psychology

John Kelly and Darren Stops

School Psychologists as Leaders

At the most basic level, leadership theories can be summarized as falling under either the "leaders are born, not developed" or "leaders are developed, not born" categories. The reality is that leadership development probably falls between these two extremes. "Leadership" is one of the most widely researched social science constructs, with multiple theories of leadership development emerging from this research (Shriberg, Shriberg, & Kumari, 2005). Unfortunately, very few "discipline specific" models have been developed, particularly related to the field of school psychology. According to Augustyniak (2014) "Preparing school psychologists for leadership practice inarguably resonates with expressed values of the profession and, because effective school psychologists often serve as catalysts for a variety of change, is intuitively valid from a functional perspective" (p. 28). The need for leadership skills among school psychologists is incontrovertible. The Australian Psychological Society (APS), in The Framework for the Effective Delivery of School Psychological Services (2013), advocates for a broad and comprehensive practice of school psychology. School psychologists in Australia are encouraged to use their expertise and training to be "educational leaders" across the direct services, indirect services, whole school services, and systems services domains.

Models of Leadership

To try and understand school psychologist leadership and leadership behaviors, Shriberg, Satchwell, McArdle, and James (2010) surveyed school psychology leaders on how they would define leadership and what constitutes the primary characteristics and behaviors of effective school psychology leaders. In relation to perception of characteristics and behaviors, findings indicated that effective school psychology leaders are characterized as being competent, knowledgeable, and possessing strong interpersonal skills and personal character. Knowing that leaders within the field of school psychology express these qualities and characteristics of effective leadership, a brief analysis of existing models may prove useful in identifying a context for leadership development. While there are no discipline

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specific leadership models for school psychology, Augustyniak (2014) posits that the "Information Processing Model," "Trait Model," and "Transformational Model" of leadership seem to provide frameworks congruent with desired qualities of a school psychology leader identified by Shriberg et al. (2010).

Information Processing Models of Leadership

Information Processing models of leadership (Lord & Maher, 2002) propose that leaders emerge based upon a combination of professional knowledge and expertise along with situational perceptions held by the leader and by the followers. The situational perceptions are generally guided by cognitive schemata or preconceived ideas and frameworks about how leaders should behave. These schemas guide the behavior of the leader, as well as the follower. The essence of leadership is that others perceive you as a leader. Leadership schemas develop based upon past experience with and previous knowledge of leaders. Therefore, the leader's behavior builds a basis for future influence through its impact upon the followers' perceptions of leadership. They are held in memory and allow us to make decisions or judgments about individuals. Identifying an individual as a leader involves matching certain characteristics or traits of this individual to a schema or prototype of a leader held in memory (see Trait Theory of Leadership below). Individuals are often perceived as leaders by others based upon their expert knowledge and their association with positive outcomes for a group (Lord & Maher, 2002).

Identified leaders in school psychology often possess a high level of knowledge and expertise in topics related to the field (Augustyniak, 2014). However, this knowledge alone is not sufficient to result in the emergence of a leader. Necessary conditions include the potential leader's perception of their ability to effectively lead, perception of their relationship to others, and perception of their role in accomplishing activities and goals important to followers. Leaders in school psychology perceive themselves to be in a position to positively influence others and engage in behaviors that result in attaining goals for the group (self-schema). Reciprocally, these leaders are perceived by the group as possessing the knowledge and skills to achieve the goals of the group (leadership schema) (Augustyniak, 2014). Behaviors engaged in by the identified leader and their association with goal attainment reinforce the schemas of the group (Lord & Maher, 2002). It is this mutual process that results in the emergence of leaders.

Central features of this model that result in the advent of a school psychology leader include the individual's ability to attain appropriate school psychological knowledge and expertise; the belief on the part of the leader that they are in a position to effectively lead and influence the group; the perception or schema on the part of the group that the individual possesses characteristic or traits associated with leadership; and the ability of the leader to seek and use feedback to modify their schemas to meet the needs of the group (e.g., talking frequently to the group, providing information, focusing on goals). Essentially, this model posits that the processing of information, both factual/technical and subjective, is critical for leadership development.

Case Example: The Informational Expert

Trevor has been a school psychologist within a government school for the past 15 years. He works with three other school psychologists, who are all supervised by an administrator. Trevor's position is the same as the other school psychologists, however, he is considered to be the "lead" school psychologist and others, including administrators and teachers, often look to him for professional guidance. While Trevor does not have a formal position of leadership, he has developed extensive knowledge regarding children's mental health factors and their impact upon learning. He is more than willing to share this information with others and has conducted several workshops for his fellow school psychologists, teachers, administrators

and parents. In fact, Trevor often attends conferences and other professional development events so that he can bring useful information back to the school. Trevor has become an important part of the decision making team at school.

Based upon the Information Processing Model of Leadership (Lord & Maher, 2002), Trevor has become a leader within his school as a result of the informational expertise that he has developed over time and his behavioral interactions with others (e.g., consulting with fellow school psychologists, teacher, and administrators, providing workshops for others). He is engaging in leader schemata, or what others think a leader should "act" like, which results in the perception of being a "leader" by others. As Trevor is given the opportunity to engage in "leadership" behaviors, he develops his own schemata of what behaviors he should continue. This interaction between Trevor's perceptions and schemata and those of others surrounding him form the basis of the Information Processing Model of Leadership.

Trait Models of Leadership

The concept of a unique set of traits or immutable characteristic that are possessed by a leader dates back to the mid-nineteenth century. From Thomas Carlyle's "Great Man" Theory (Carlyle, 1841) to Francis Galton in *Hereditary Genius* Galton (1869), early work proposed that leadership was a unique property of extraordinary individuals, and suggested that the traits which leaders possessed were immutable and could not be developed (Galton, 1869). While these theorists were influential in shaping the dialogue around leadership qualities, researchers began to recognize that specific traits identified in good leaders did not always predict leadership across situations. In 1948, Stogdill proposed that leadership exists between people in specific situations, and that individuals who are leaders in one situation may not be leaders in other situations.

What has emerged in current thinking around leadership traits reflects the interaction of specific individual characteristic and mediating environmental influence, which impact the effectiveness of leaders. Zaccaro, Kemp, and Bader (2004) have proposed a model which accounts for the effects of leader attributes and performance. The Model of Leader Attributes and Leader Performance (Zaccaro et al., 2004) provides a conceptual framework for the interaction of leadership attributes and environmental influences that impact leadership outcomes. The model draws upon the work of early trait theorists regarding identified attributes correlated with effective leadership and the influence of environment. Within this model, trait-like attributes, such as cognitive abilities, personality, and motives, are categorized as "distal" attributes because they are generally not impacted by environmental influences and exhibit strong cross-situational contributions to leader outcomes. However, the model also accounts for "proximal" factors, such as knowledge or skills possessed by the leader. These individual differences suggest that the characteristics that distinguish effective leaders from noneffective leaders are not necessarily stable through the life span, implying that these traits may be able to be developed.

While the following list of attributes is not exhaustive, all of these factors have been found to be positively correlated with effective leadership (Bass, 1990; Hoffman, Woehr, Maldagen-Youngjohn, & Lyons, 2011; Judge, Bono, Ilies, & Gerhardt, 2002; McClelland & Boyatzis, 1982):

Distal factors	Proximal factors
Extraversion	Interpersonal skills
Conscientiousness	Problem-solving skills
Openness	Decision making skills
Honesty/integrity	Management skills
Charisma	Technical knowledge
Intelligence	
Creativity	
Need for power	

According to Augustyniak (2014), distal and proximal attributes contribute to the flexibility of the leader's behavioral response to challenges. Augustyniak proposes that "because proximal attributes can be altered substantially by training and experience, they are the implicated targets for curriculum designed to improve leadership outcomes" (Augustyniak, 2014, p. 20) in school psychology.

Case Example: Leadership Traits

Phoebe is often described as a "powerhouse" by her colleagues. She is an outgoing school psychologist who seems to light up the room whenever she is present. Children seem to gravitate toward her in school, as she is known to provide fun and creative projects to work on. Phoebe describes herself as someone who has always wanted to be leader since she was a child. She was the captain of her high school soccer team and continued playing when she went to university. Phoebe is very good at problem solving and is organizing professional development events for teachers and staff and she guest lectures on school psychology practice and child development at her local university. In her first year at her school, she recognized a need for developing emotional regulation techniques in many of her students, and after convincing school leadership, began implementing an evidence-based whole-school mindfulness program, which both teachers and parents alike have noticed considerable improvement in student well-being. Phoebe conducted pre- and post-program evaluations of this initiative and published the results. When a government project related to developing a social and emotional whole-school program was proposed, Phoebe was the first person to be recommended to lead this by her administrator.

Phoebe possesses many of the distal and proximal characteristics of a leader (e.g., outgoing, self-assured, creative, driven, good management and problem solving skills). Because she displays many of these characteristics, Phoebe is thought of as a leader by many of her peers.

Transformational Models of Leadership

Transformational leadership (Burns, 1978) is a form of leadership that elevates the beliefs and motives of others, and supports them in achieving higher levels of functioning (Avolio, 1999). Since Burns introduced the concept of a "transformational leader," research in this area has grown to become the most extensively studied model of leadership (Barling, Christie, & Hoption, 2011). Transformational leadership comprises four dimensions; *idealized influence*, *inspirational motivation*, *individualized consideration*, and *intellectual stimulation* (Bass & Riggio, 2006). When leaders display idealized influence, they behave as role models and stimulate the trust and respect of followers. Leaders who engage in inspirational motivation communicate high expectations, are optimistic with regard to what followers can achieve, and energize others to go beyond minimally accepted standards. These leaders recognize and adapt to others' individual needs and abilities. Finally, when such leaders engage in intellectual stimulation, they encourage followers to think independently and contribute their own thoughts and ideas (Bass & Riggio, 2006).

According to Augustyniak (2014), "consideration of transformational leader models suggest that school psychology leaders equally reflect on and invest in their organization and its members as they do in themselves" (p.22). Once they recognize their school needs to change systematically to improve student outcomes, they seek and create opportunities to share ownership in collaborative strategic planning (Stollar et al., 2008). Gurr and Mulford (2007) describe case examples of leadership in Australian schools which have resulted in an improvement in student outcomes. Positive outcomes were associated with "clearly articulated values, beliefs and vision, fostering of good relationships, developing staff, and understanding the broader context surrounding schools were all features of the work of the leaders" (p. 1). Bennis (2007) identified six competencies of exemplary leaders that serve as target outcomes of transformational leadership in school psychology: (a) leaders create (or facilitate) a sense of mission; (b) they motivate others to join them in that mission; (c) they create an interpersonal environment wherein others can be successful; (d) they generate trust and optimism; (e) they develop other leaders; and (f) they get results. It is through these competencies that the leader exerts a positive influence on the group.

Case Example: The Transformational Leader

Trudy grew up in a rural area of Tasmania. Her family was poor and she knew what it felt like to come from "the wrong side of the tracks." However, growing up, school was her "safe place." Where she felt valued and encouraged. Trudy developed a love for education and a sense for the power that a good education provides. After graduating from university with a degree in teaching, she went to work back in her small rural community in Tasmania. However, she noticed the barriers to education caused by poor literacy and mental health issues, and felt that she needed more knowledge to be able to truly help. Trudy returned to university to complete a qualification to be school psychologist, and learned evidence-based practices for addressing mental health issues. She also learned about the processes involved in reading development, which were different to what she had been taught as a teacher. Trudy saw education as a social equity issue and believed that the opportunity to succeed at learning was crucial for all children, no matter what their background.

Trudy was able to work within her schools to run programs teaching social skills and using cognitive behavioral techniques to help prevent depression and anxiety. She taught this in conjunction with teaching staff to increase their skills and understanding. At the same time, with the help of parent-volunteers, she was able to implement a reading program for small group of students that was so successful it inspired other teachers to do the same. As the school's literacy levels significantly improved, the programs gained the attention of administrators, and eventually politicians to extend it to other schools. Trudy was able to inspire others with her story, and her belief in the power of education. Others shared Trudy's passion for wanting to help schools to truly address these important barriers to education, and advocated for her methods to be implemented in similar schools.

Trudy was a transformational leader by developing a vision based upon her values and beliefs. This vision resonated with her colleagues who trusted that Trudy was genuine in her desire to help the community. Shared responsibility and leadership resulted in the development of effective programs for addressing mental health issues and for teaching literacy.

School Psychology Training and Leadership Development

In Australia, a variety of titles are used to identify school psychologists. "These titles include educational psychologist, school psychologist, guidance officer and school counsellor. Sometimes, the latter two titles are also used to identify individuals from other disciplines. However, within the psychology profession, psychologists working in schools providing psychological services to students are typically known as school psychologists" (APS, 2013, p. 4). School psychologists work in a variety of settings from preschool through secondary school. Some school psychologists work in single school settings, while others who work within the government system tend to have coverage over various size regions. School psychologists are accredited by the Psychology Board of Australia, with a minimum of a 6-year sequence of training and experience. Within this sequence, it does not seem that school psychologists are usually provided the knowledge and experiential opportunities to develop leadership skills.

Traditionally, school psychologists in Australia have been teachers first, and psychologists second (Faulkner, 2007). In the majority of jurisdictions, the school psychologist came from a teaching background, and then completed psychology qualifications, or alternatively, followed a dual pathway, whereby they were qualified as both psychologists and teachers. As training requirements in both professional streams have increased, this dual pathway has become more difficult, and training in psychology has predominated. This has perhaps also restricted the capacity for educational leadership, by disconnecting school psychologists from the teaching profession. Augustyniak (2014) summarized it best when she states:

> "… school psychologists often find themselves confronting issues that have a great deal of breadth, complexity, and visibility. These include occupying key roles in instructional leadership teams, consultation for behavioral and academic concerns, mediating cultural biases, crisis intervention, school violence deterrence and response programs, and a variety of other prevention and harm-reduction programs aimed at curtailing youth risk. Often, these roles place high demand on school psychologists' professional and interpersonal competencies in order to work effectively across internal and external boundaries within the school and broader community. Success often requires the ability to build alignment with and inspire commitment in diverse groups of people over whom the school psychologist has no direct authority and whose views and objectives might be vastly different from their own"(p. 23).

As a result of these demands inherent in the school psychologists' role, explicit leadership development opportunities at the graduate preparation level would seem beneficial. As the training of school psychologists in Australia is transitioning to a greater focus on psychological practice and away from the traditional teacher preparation, leadership development and advocacy-related skills need to be part of this education. Augustyniak (2014) provides a reasonable framework of these leadership tenets for integration into school psychology training experiences. Essentially, Augustyniak recognizes various leadership development opportunities inherent within the current structure of many school psychology training programs. She advocates for the development of leadership skills for all school psychology graduate students as part of their training program.

Advocacy as a Leadership Development Activity

School psychologists, are invariably placed in a position where they may need to advocate for individual clients, parents and families, systemic changes, their role, and their own profession. Advocacy at the micro level often involves advocating for individuals within a system (e.g., speaking up for a student in a disciplinary hearing; helping a parent understand their son/daughter better). However, advocacy at the macro level involves advocating for groups within a system (e.g., presenting to the education minister in order to preserve school psychologist positions; working with an elected official to get a bill passed authorizing a new grant program).

A great example of school psychologist advocacy is in the United States, by way of the National Association of School Psychologists (NASP), as outlined in the Vision, Mission, Core Values, and Priorities statement (NASP Vision, Mission, and Goals, http://www.nasponline.org/about_nasp/strategicplan.pdf). NASP's current strategic plan also specifically identifies increasing the number of school psychologists and graduate students trained in advocacy skills as a broad advocacy objective. In Australia, there is no equivalent body as big and as comprehensive as NASP. As a result, any leadership or advocacy that has taken place has very much been the result of individual school psychologist "leaders" who have worked in leadership positions dedicated to the support of school psychologist members in the APS but who have done so without the people-power needed to create significant change schools Australia-wide. These leaders have all worked as school psychologists themselves and are highly dedicated to ensuring the profession is not only maintained within schools, but that school psychologists themselves are resourced and supported to undertake their complex and important work. Without the school psychologist, the services that students need to overcome barriers to learning may not be available or accessible to them and this may compromise their ability to learn and to graduate from school (Skalski, 2009).

The need for advocacy may be dependent on factors ranging from political, systemic, individual workplace, or how others value and understand the role of school psychologists and their purpose. Given that much of their work is not visible to others, their role is particularly vulnerable at points of change, for example where a new principal is appointed in a school, or a new Minister of Education who wishes to stamp their mark on the system.

School psychology is also certainly not immune to the factors that impinge upon the pro-

fession as a whole: genericization of roles, cost shifting, cost saving, and competition from other professional groups. These factors are compounded where there is a lack of understanding about the school psychologist's role and the issues presenting in the school setting. In this regard, we should certainly take heed of our social work colleagues in Australia, whose practice of advocacy and promotion of change processes is central to their professional practice. Why advocate? School psychological services are often the initial resource for young people with problems, and are far more likely to be accessed when they are available in the schools. Sometimes, they may be the only professional services that are available in a community (Boyd, et al. 2007; Juszczak, Melinkovich, & Kaplan, 2003; Rickwood, Deane, & Wilson, 2007).

The high level of need for mental health services for children and adolescents has been repeatedly documented in studies, and is highlighted by the fact that suicide is the leading cause of death in Australia for young people (Australian Bureau of Statistics, 2014). School psychologists are uniquely positioned in schools to facilitate the development, delivery, and monitoring of culturally responsive mental and behavioral health services for prevention and intervention. As Hughes and Minke (2014) have observed, "school psychologists are situated in real time in the biopsychosocial system where children spend 35 h or more a week" (p. 29). School psychologists' broadly focused preparation as academic, mental, and behavioral health service providers, coupled with their engagement in and familiarity with schools' organizational and cultural context, equips them to specifically play a primary role in multitiered and responsive school-based mental and behavioral health programs.

Basics of Advocacy

Advocacy is the act of pleading or arguing in favor of something, such as a cause, idea, or policy; it is about providing active support for an issue (Merriam-Webster, 2015). There are several basic elements to effective advocacy campaigns (NASP, 2006). However, before engaging in any type of advocacy, it is important to understand why this type of action is needed. Considering the following issues will help to identify some of the key elements for your campaign:

1. Know *what* you believe and understand about a specific topic or issue.
2. Know *why it matters* to you and should matter to someone else.
3. Know *what you want to do* about it.

The answers to these questions provide the basic outline for any advocacy campaign. Based upon this information, key messages that inform others about the issues are crafted and a strategic plan to engage in purposeful actions is developed. Kathy Cowan, Communications Director of the National Association of School Psychologists (NASP), devised the "advocacy equation" (NASP, 2006). She posits that strong leadership plus a well thought out communication plan leads to inspiration of others and an intentional planning process which results in effective advocacy.

Identification of effective leadership is a critical component of the strategic plan. It is this leadership that will make informed decisions about the campaign, communicate the key messages, and guide others in support of the campaign. Leadership is often a team effort, which requires time and commitment from all involved. Advocacy campaigns are often compared to training for and running a marathon. Continuity of efforts over long periods of time (sometimes years) is vital. However, the "leadership team" is often led by one individual who serves as a "champion" for the campaign. This leader guides the efforts of the team based upon the vision and mission of the campaign. Key characteristics of the leader include being easy to "follow," embracing and encouraging others participation, and communicating effectively with others. It is said that a successful campaign is dependent upon having an ethical, visionary leader *and* courageous followers.

Effective communications should be incorporated into any strategic plan and involves a num-

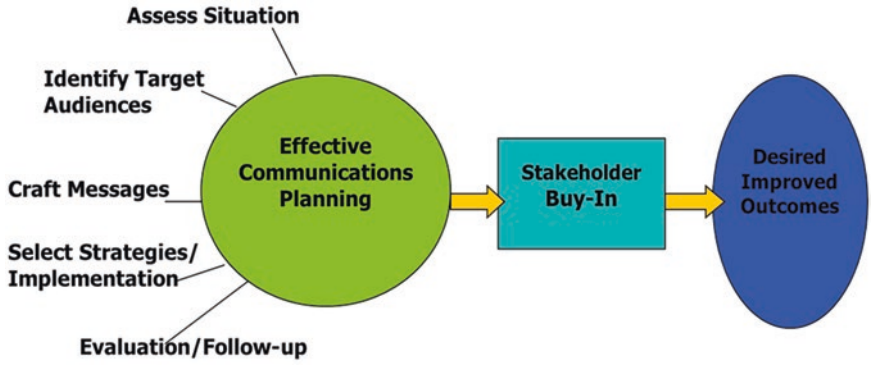

Fig. 1 Communication planning and message development (NASP, 2006)

ber of steps. Good communication in an advocacy campaign is responsive to emerging situations and the needs of key audiences. Determining what people need to know and why this matters is critical. Effective communication is vital to achieving the goals and objectives of school psychologist, whether trying to improve services at the school level, secure funding at the state level, or shape policy at the national level. Failure to communicate well can result in negative outcomes and missed opportunities (NASP, 2006). Engaging in an intentional planning process will enhance this message development (Fig. 1).

1. Assess situation—During the assessment phase, the problem that is being addressed is defined. Factors related to the problem or potential supports are identified. Goals for the communication plan are outlined during this phase.
2. Identify stakeholders—The audience for your messaging may vary, but is important to know their priorities. Identify their knowledge or level of awareness of your issues and their perspective on these issues. Recognize potential barriers to their understanding of your message and their willingness/ability to take action. Anticipate potential obstacles or individuals/groups that may oppose your efforts. Avoid "turf battles" that others need to mediate. Identify and engage your allies or partners. Working with a "coalition" of organizations that share your goals provides "strength in numbers."
3. Craft your message—Define your main point. Choose three key messages based upon your main point, with two to three key supporting facts. Use simple language, but resonate with your audience. Avoid facts and statistics (e.g., 25 % of the deaths of individuals in Australia between the ages 15–24 are caused by suicide). Instead use personal stories or "social math" to illustrate your point (e.g., Suicide is the leading cause of death for young Australians, claiming the lives at least 281 15–24-year-olds in 2008). Offer solutions or benefits to what you are proposing.
4. Select strategies to implement—There are three levels of strategic communication:
   (a) Proactive communication: Engaging in communication that offers information or an action on your part, but requests nothing in return. This type of communication facilitates visibility with key stakeholders (e.g., administrators, policy makers) and/or allows others to raise awareness or comfort level with an issue. Building relationships with others is accomplished with this type of communication. Examples of this type of communication include articles in school newspapers, webpages with relevant information for parents, providing information on a crisis event, or commenting on legislation being discussed at the state or national level.

(b) Action Requests: Engaging in communication that offers information or action on your part, with a request for action or support for your issue. This type of communication is utilized to facilitate audience "buy in" and a decision to do something. Strengthening relationships is accomplished with this type of communication. Examples include needing support for the implementation of a mental health program in school, you offer to participate in the planning and design of the program, or wanting legislative support for an important issue, you offer to serve on an "educational advisory committee."

(c) Crisis communication: Engaging in communication that is intended to minimize potentially damaging consequences of a situation (e.g., school shooting, proposed cuts to school psychological positions). Using preexisting relationships often facilitates this type of communication. There is often need for a rapid response, with designated contacts to deliver the message.

Understanding the inter-relationship between all three communication strategies is important. Proactive outreach leads to relationships that result in action requests which strengthen relationships needed for crisis communication.

5. Evaluation and Follow-up—Establishing measurable and concrete goals for your communication plan will allow for an assessment of the effectiveness of your actions. Do not hesitate to change strategies if your desired outcomes are not achieved.

Case Example: Australian Education Union vs. Tasmanian Department of Education

In 2009, a significant industrial campaign was waged in Tasmania by the Australian Education Union, on behalf of school psychologists employed in government schools (Brown, 2009a). One of the authors of this chapter (Stops) had a significant involvement in organizing and running this campaign. The Department of Education in Tasmania was (and still is) the largest employer of psychologists in the state, and there were few other psychological services available to young people outside of this. However, with no designated training pathway for a number of years, poor pay, a lack of career structure, and no way for new psychologists to enter and be retained by the system, there was a dire risk the service would disappear (Australian Education, 2009; Australian Education Union, 2009b; Brown, 2009b, Thielking, 2009)

Historically, there had been more than 20 years of committees, reviews, attempts to reestablish training courses, and a number of other initiatives with no visible outcome. The campaign was a result of four years of protracted industrial negotiations, also with no outcome, and the employer was unwilling to negotiate (Brown, 2009c).

Union "organizing" is a professional activity done by unions with a body of theory and processes behind it (O'Halloran, 2006). Part of this is the Anger, Hope, Action model, attributed to Saul Alinsky. There was already a significant amount of anger about work conditions, loss of staff, and the length of ongoing negotiations. Hope for change was generated through the plan to take action.

The action plan included a great deal of preparation by school psychologist members and the union Organizers, of the key messages, strategies and the identification of key stakeholders. People who were likely to take action were personally approached by individual members, with Union support and timelines were set for a range of activities within the campaign. A major strategy was to identify allies: other stakeholders who have an interest, such as school councils, parents and friends groups, community organizations related to mental health and disability, the school principals association, the unions, children's commissioner, antidiscrimination commissioner, and professional organizations, such as the Australian Psychological Society, The APS College of Educational and Developmental Psychologists, and the Australian Guidance and Counselling Association.

There were several press releases and media interviews, and a number of journalists were keen to take up the issue given the core themes of social justice, youth mental health, and schools. The campaign was remarkable in its scope and breadth, including for more than three weeks, including front-page articles in newspapers, double page spreads covering the issue, and many, many, letters to various newspapers from parents and other key stakeholders. APS senior management also participated in radio interviews, which had a huge impact.

Possibly the key aspect of the campaign, was the innovative use of emerging social media. All letters to politicians and the media, press releases, media articles and updates on activities were uploaded onto the AEU website, and linked to a campaign Facebook page, as well as circulated by e-mail. The key messages were continuously repeated, focusing on the risk to vulnerable client groups, the essential function of the school psychology service to the community, the integral nature of the service in linking to other services, the fact that the services provided by schools and colleges were not available elsewhere, and the concern about the future of the service.

The campaign was underpinned by a great deal of work by the campaign leaders and other senior members of the profession, who forged very strong relationships with key organizations, community members, and politicians to increase and share an understanding of the role of the school psychologist and lobby for it to be recognized.

One of the most impressive inputs to the campaign, was from a group of young people who, in the space of a few days in their school gathered over 400 signatures and staged a very noisy rally complete with megaphones and placards outside Parliamentary offices, encouraging passers-by to honk their horns in support of school psychologists (Brown, 2009c).

There were, of course, barriers, opponents and saboteurs, who were largely overcome by keeping the focus on the client and the public and community good. With a looming election campaign, the unexpected publicity and overwhelming support for school psychologists lead to unprecedented direct intervention from the Premier (and Education Minister) of the day, David Bartlett. The further promise of what amounted to a 25% increase in School Psychology staffing, was greeted with widespread relief, and public acclaim from all those involved, and may have had a significant effect on the subsequent election. Unfortunately the extra positions were not honored by subsequent Ministers (Gallasch, 2013) but the overall outcome of the campaign placed school psychologist and their services firmly in the public spotlight, and caused industrial changes which greatly increase the reliability of the service continuing into the future. The campaign provides a model for grass roots advocacy, showing that a marginalized, minority group of professionals could be galvanized to action, and gain the support of the wider community. Public and political awareness of the role of School Psychologists went from almost zero, to top of the news.

Leadership and Advocacy Opportunities for Australian School Psychologists

Psychologists working in schools comprise around 6% of the membership of the Australian Psychological Society (APS, 2015). There are also a significant number of psychologists working in schools who are not members of the society (HWA, 2014). The APS provides a range of support and opportunities for school psychologists, as well as high-level political and systemic advocacy.

The Australian Psychologists and Counsellors in Schools Association (APACS) also provides support and networking for school psychologists, as well as guidance officers and non-psychologist school counsellors (The latter title being quite confusing in jurisdictions where school psychologists also have the job title school counsellor). Formerly known as the Australian Guidance and Counselling Association (AGCA), a number of state branches in recent years moved to become affiliates of the national parent body, due to constitutional differences about membership criteria.

Some states had constitutions specifying that full members must be registered psychologists, which was at odds with the national body. The name of the organization was subsequently changed, along with the Australian Journal of Guidance and Counselling, which is now the Journal of Psychologists and Counsellors in Schools. The journal provides a substantial incentive for membership, given that it is the only journal in Australia particularly focused on school psychological practice. A number of eminent figures in APACS, are also APS members of some note, and the two organizations have successfully run combined state activities and participated jointly in a major national conference.

The APS Psychologists in Schools Advisor was a dedicated position based at the National Office to provide strategic advice and recommendations to the APS on critical issues faced by psychologists and schools Australia-wide. The Advisor chaired and worked with the National APS Psychologists in Schools Reference Group, and was also a resource for the APS Professional Advisory Service, ensuring up-to-date advice for APS members working in schools.

The APS Psychologists in Schools Reference Group, (see, http://www.psychology.org.au/practitioner/groups/PSRG/) comprised a small number of psychologists from all states and territories, at varying stages in their career, from public, independent, and catholic schools. The reference group thus provided a conduit of current practice-based information and issues from every state and system, as well as assisting the advisor with specific tasks. These included advocacy and representation on school psychology issues, such as client confidentiality and access to psychologists' files, the ongoing issues with the National School Chaplaincy Program (ABC, 2011; APS, 2014, Zygnier, 2014) professional roles and boundaries, career progression, and other professional and practice issues. Other practical tasks included the development of a generic school psychologist position description, guides for parents, school newsletter resources, a school psychologist leaflet for use in schools, (explaining the role and how it operates), and working on Australia-wide best practice for the assessment of intellectual disability for school-age children.

The APS College of Educational and Developmental Psychologists (see, https://groups.psychology.org.au/cedp/) promotes educational and developmental psychology as a discipline, maintains practice standards, and supports the professional development of its members (APS 2015). However, many psychologists working in schools are not members of the College. The creation of the APS Psychologists in Schools Interest Group was to bring together all psychologists working in schools to provide them with a forum for discussion of school psychology issues, professional development opportunities, an annual conference, and opportunities for peer contact and advocacy.

In our experience, it appears that oftentimes many important decisions made about school psychological practice in the schools are not made by school psychologists. Flattened management structures, and barriers to psychologists moving upward into management streams seem to exist in most jurisdictions where there are significant issues for the profession. In systems where there are defined career streams with school psychologists represented at the highest level (e.g., Western Australia) there seems to be greater understanding (and valuing) of the role, and less need for advocacy.

However, history shows that this can change at any bureaucratic or political whim. School psychology services are often subject of reviews and restructures, seemingly for two diametrically opposed reasons. The first is the crucial support that the service provides to the most vulnerable, at risk, and significant students in schools, which repeated reviews and restructures throughout the country have never failed to acknowledge. The second is that particularly in under-resourced government schools, anything that occurs outside the classroom is not seen as core business by some, and therefore always at risk of being undervalued, and its removal seen as a cost saving measure, when in fact the reverse is true. At its most basic level, this can be the decision of whether or not to have school psychologist, some other professional, or no service at all.

Misunderstandings, misinformation and in some case other agendas can have a profound effect on the presence and role definition of the psychologist working in a school.

Examples of myths associated with the role of school psychologists abound within some quarters of education, for example, hostility towards cognitive testing, a decrying of accurate diagnosis as "labelling," and promotion of evidence-based teaching (such as the need for synthetic phonics in early reading). A significant example, of this were the repeated attacks on client confidentiality by the Association of Independent Schools (NSW), including publication of advice and information about psychologists' code of ethics and their practices, which has been vigorously disputed (APS, 2014; Hensley, 2015). Interestingly, in our experience, most of those who seem to express anti-psychologist sentiment or dismiss the role, are not the teachers or others who interact with school psychologists at the coalface, but rather those in bureaucracy or who hold philosophically held belief systems which are diametrically opposed to the scientist–practitioner model.

It is our responsibility to ensure that students and their families have access to a high-quality, effective, evidence-based psychology service, and this requires that policymakers are informed and motivated to provide such a service. We should also be mindful that in some disadvantaged and rural communities, the school psychologist may be the only access families have to such a service. However, the ratio of school psychologist to students varies significantly from state to state and system to system, with none approaching the 1:500 ratio recommended by the Australian Psychological Society (APS, 2013), and the New South Wales Coroner (MacPherson, 2010).

Summary

Recognizing the needs of the children and families that school psychologists serve and external factors that often impact the provision of these services, the emergence of effective leaders within the profession and development of advocacy efforts that influence decision making and policy agendas is critical. However, without state or national mandates to engage in these actions, the responsibility falls upon those professionals practicing school psychology and the graduate preparation programs training future school psychologists to ensure that leadership development and engagement in activities falls within the rubric of activities of the profession. The Australian Psychological Society promotes the enhancement and professional development of requisite leadership and advocacy skills. It is important for school psychologists to avoid the group dynamic of thinking that others will engage in the needed actions or to simply "ride the coat-tails" of others. Instead, school psychologists need to embrace the concept of "personal responsibility" to ensure that appropriate actions are taken when the situation demands these actions. As Winston Churchill once said "I never worry about action, only inaction." However, most apropos to leadership and advocacy is the unknown author who said "if you are not at the table, you may be on the menu!"

Test Yourself Quiz

1. School psychologists in Australia sometimes feel as though decisions about educational programs to improve student learning, mental health and behavior are made without their input. However, school psychologists are often very familiar with the research behind educational interventions and how to use data to make better decisions. Based upon what you read in this chapter, what would you do to take a leadership role in educational reforms within your school?
2. What models of leadership are identified, and which ones do you think apply best to the role of the school psychologist?
3. Identify a current issue that you might engage in advocacy for and consider how you may develop an advocacy plan, implement the plan, and evaluate the impact of your advocacy.

Consider:

(a) How widely and deeply felt do you think this issue is?

(b) How much the issue is relevant:
- Professionally?
- Politically?
- Publicly?

(c) Make a list of potential allies and key stakeholders

(d) Who are the key decision-makers and influential people that you need to get to?

(e) What three key messages do you want to get across?

(f) What are the potential threats and barriers to getting what you want? How can they be addressed?

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Provision of Supervision and School Psychologists' Self-Care

Janene Swalwell and Virginia Smith Harvey

Skilled school psychologists reflect upon their behaviour and practice, consider their impact on others and adapt when appropriate. To mediate the unique professional challenges of school psychology, they discharge their professional responsibilities and practise self-care strategies by attending to their own personal needs, physical health and mental and emotional wellbeing (Barnett, Baker, Elman, & Schoener, 2007). They also seek reflective discussions with peers and supervisors.

In the Australian school psychology context, supervision can have training, consultative, resourcing and administrative functions. Hawkins and Shohet (2012) defined supervision as 'a joint endeavour' in which the supervisor supports the supervisee to advance their practice by 'attending to their clients, themselves as part of their client practitioner relationships and the wider systemic context…' (p. 60). Research provides increasing empirical support that good clinical supervision fosters professional growth, reduces stress and burnout and strengthens practice for both new and seasoned professionals (Newman, 2014). Supervision with corrective feedback can prevent psychologists' and counsellors' skill deterioration, reduce isolation, prevent burnout, improve problem-solving (Kavanagh et al., 2003) and foster self-reflection (Carrington, 2004). Supervision and self-care have also been found to promote job satisfaction in professionals engaged in mental health support roles (i.e. Hykräs, 2005).

Despite known benefits for clients, practitioners and practice, until recently school psychology supervision and self-care have received little systematic attention, as evidenced by their absence in key references (e.g. Clauss-Ehlers, 2010; Gutkin & Reynolds, 2009; Molina, 2008). Additionally, whilst school psychology supervision resources are emerging (Simon, Cruise, Huber, Swerdlik, & Newman, 2014), most psychological supervision and self-care frameworks have been developed in clinical and counselling psychology fields and so assume supervisory contexts of counselling, one-to-one and health-based practice orientations (Bernard & Goodyear, 2008). Such approaches exclude many important features of school psychology including school, ecological and systemic contexts (Harvey & Pearrow, 2010).

Evidence about school psychologists' supervision and self-care informs this chapter and suggests opportunities and challenges for supervisors and supervisees alike. The chapter first depicts general considerations regarding supervision and self-care of school psychologists. Then it attends

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to Australian school psychology and its specific contexts as they relate to supervision and self-care. Finally, effective supervision of school psychologists will be discussed. Alongside the primary topics of supervision and self-care, some issues that affect school psychologists' professional practice and outcomes are discussed, as they impact on needs for both.

General Considerations in the Supervision of School Psychologists

The roles taken by school psychologists vary in different education systems and for different employers. How the role is interpreted affects the scope, content, qualities and outcomes sought from clinical supervision. Whilst clinical supervision is primarily about supervisees' development, self-reflection and evaluation, it also functions to support the profession, its standards and its systems. Individual circumstances further inform the topics and approaches of supervision.

Clinical Supervision of Psychologists

Although at times the same individual has responsibility for clinical and administrative supervision, clinical supervision has fundamental differences from, and can be incompatible with, administrative supervision (Bernard & Goodyear, 2008). Administrative supervisors recruit, hire, delegate assignments, conduct formal personnel evaluations and design corrective actions. Administrative supervisors may have different professional backgrounds and training from supervisees. In contrast, clinical supervisors must have discipline-specific knowledge because they directly promote professional skill building (Falender et al., 2004). For example, clinical supervisors may demonstrate and teach techniques and skills, help supervisees conceptualise cases, assist them to disaggregate and interpret data, assist in the design of intervention strategies and help supervisees work with different types of clients and colleagues. As supporters of professional practice, supervisors may debrief supervisees after difficult or crisis situations, provide second opinions and help supervisees address their blind spots. They provide training and professional development (PD) opportunities and ensure supervisees practise only within their areas of professional competence. In addition, they assess and recognise when a case or circumstance will stretch the supervisee's development and when it should be referred on to a more experienced or differently trained practitioner. In so doing, they help avoid overwhelming supervisees, protect clients' wellbeing and promote best outcomes.

Supervision Frequency and Duration

Whilst frequent supervision is absolutely essential for beginning psychologists, supervision is also important for more experienced practitioners (Stoltenberg, McNeill, & Crethar, 1994). Supervision helps all psychologists reflect and evaluate what is progressing well and what needs change or development. It expands relevant professional contacts and PD and reduces professional isolation (Thielking, Moore, & Jimerson, 2006). Clinical supervision provides the organisational framework for the well-planned, effective, lifelong professional learning, required by the Australian Health Practitioner Regulation Agency (AHPRA) and the Australian Psychological Society (APS) for registration and membership. For interns (provisional psychologists), at least an hour of supervision is required for every 17.5 h of practice. For practitioners, a minimum of 10 h of individual and group supervision per year is required.

The focus of supervision changes over time. Rønnestad and Skovholt (2013) conducted cross-sectional and longitudinal studies during which they interviewed more than 100 psychologists and counsellors. They found distinct patterns in the characteristics and abilities of practitioners across their careers; professional development was lifelong, slow, continuous and erratic. Positive professional growth was propelled by an intense commitment to learn, continuous reflection and shifting between consideration of internal and external factors. *Beginning interns* tended

to be overwhelmed, anxious and self-critical and often sought 'cookbook' strategies with prescribed frameworks. Supervisees needed to foster an 'active, searching, trying-out' approach to grow beyond this stage. Moving away from such reliance on easily learned models and methods, *advanced students* started to evaluate models of practice, to differentially accept or reject components and to develop beginning awareness of the impact of their personality and background on their work. *Novice practitioners* initially enjoyed the freedom of being on their own, but became disillusioned when they realised that they faced challenges for which they were unprepared. Those who adjusted well acquired additional techniques; those who did not adapt felt inadequate and became overwhelmed by the complex contexts of schools, districts, communities and families. *Experienced professionals* had practised for a number of years and developed an integrated yet flexible approach in their work with a wide variety of populations and problems. Those who adapted well accepted that there were no easy answers for the complex problems that face clients; those who did not adjust experienced 'burnout' or relied disproportionately on past experience rather than refreshing their practices from current research. The most successful *senior professionals* (with over 20 years of practice) continued to grow professionally and were highly productive and increasingly creative. They were realistic about outcomes, felt decreased anxiety, had increased self-acceptance and feelings of competency and often sought opportunities to mentor the next generation. In contrast, maladapted senior professionals were frustrated, cynical, apathetic, bored and disengaged. Bernard and Goodyear (2008) found some of the most troubled and adversarial practitioners had extensive, unsupervised experience. They recommended addressing such negative emotions and behaviours directly through supervision, PD and group experiences such as e-learning networks. School psychologists have opportunities to apply these findings to practice, both in relation to developing mentoring relationships between senior and junior psychologists and in online forums where they can learn from each other and provide supervision.

Supervisee Evaluation and Promotion of Self-Appraisal

Clinical supervisors also assume an evaluative role whenever they verify that a supervisee is practising skilfully and ethically enough to be, or continue to be, registered (Bernard & Goodyear, 2008; Crespi & Dube, 2006; Falender & Shafranske, 2004). Sign-off by the supervisor endorses competence and suitability of the supervisee whether for the profession, for the area of practice or for the role of supervisor. Particularly with beginning practitioners, clinical supervisors provide formal evaluations (for multiple examples of models and sample forms, see Bernard & Goodyear, 2008; Falender et al., 2004; Harvey & Struzziero, 2008).

Without adequate reflection, school psychologists may not discriminate which practices result in improved outcomes (Carrington, 2004). Yet it is very difficult to sustain reflective practice alone, particularly in the face of the time pressures and professional isolation that are common factors in school psychological practice. Fortunately, supervision can foster school psychologists' reflective practice and thereby result in continuous improvement.

Unique Aspects of School Psychology Affect the Supervisory Relationship

In addition to the above general considerations, supervisors of school psychologists need to be aware of the distinctive features of school psychology. Simon et al. (2014) identified three principal, distinctive components in school psychology: developmental, ecological and problem-solving (DEP) model. Building from this model, this chapter's first author developed Fig. 1 to illustrate how these distinctive features influence what is needed in supervision of school psychologists to increase their skills in all three components.

Supporting individual children in their *development*, *learning* and *education* has been the traditional focus of school psychology, where psychologists link their psychological expertise to the educational curriculum and translate this

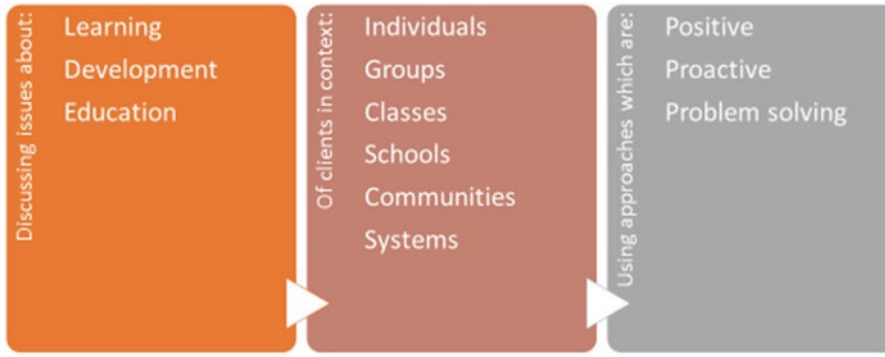

Fig. 1 School psychology supervision involves supervisees in the activities below

into their interdisciplinary work with educators. Related supervision involves supporting psychologists as they learn to develop respectful, collaborative relationships with children, teachers, parents, administrators and other support personnel; to make specialised information accessible to non-psychologists; and to acquire skills in assessment, intervention, counselling and management.

School psychology is unique in its emphasis on *ecological contexts*: school psychologists can approach issues through working with individuals, small groups, classes, parts of schools, whole organisations or systems. Supervisors should understand and facilitate supervisee development on many or all of these levels, as appropriate. For example, considering learning difficulties may require individual assessment, intervention design and evaluation and then perhaps also consideration of similarities between one client's needs and others. These understandings may lead onto plans involving peer mentoring or tutoring, collaboration with parents and educators, facilitating remedial groups or discussion about class, year level or school-wide approaches.

Finally, school psychology is about *positive proactive approaches* and *problem-solving* and should include focus on prevention, promotion and positive support. Rather than just consideration of individual remediation, quality supervision asks supervisees to consider what might build on individual's strengths as well as what school-based requests suggest about the school and its population. Supervisors encourage problem-solving by addressing children and adolescents' circumstances creatively and flexibly from within the myriad of potential supports and techniques available.

Supervision of Early Career School Psychologists

Most early career school psychologists master working with individuals more readily than other aspects of service delivery (Newman, 2014). They gain credibility with colleagues, educators and school administration as they accrue successful outcomes with individuals. They then begin providing services to groups of individuals with related needs, and, finally, they are able to consult about broader systems issues such as integrating preventative approaches within the curriculum, promoting prosocial skills, and addressing school, family and community relations (Sheridan & Gutkin, 2000). The first author of this chapter developed an illustration of this progression hierarchy, shown in Fig. 2.

Unless school psychologists have trained in all tiers of the intervention pyramid above, early in their careers, they are likely to lack confidence and skills working with the broad educational context, school organisations, coaching and consultation approaches and systems thinking.

Finding supervisors trained and experienced in all aspects of school psychological practice can prove challenging but is essential to promote high-quality practices for children, schools and

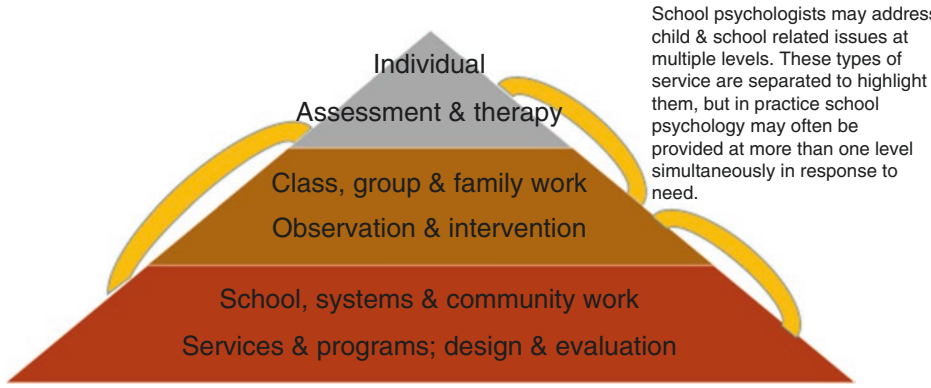

Fig. 2 The focus and roles of school psychology

the community. Each practice tier presents different supervision issues that require different knowledge, skills and supervision practices, as illustrated in Table 1.

Supervision and School Systems

Some challenges of school psychology supervision are inextricably intertwined with the issues faced by the field of school psychology and education (Harvey & Pearrow, 2010). These include school-related educational policy initiatives, ineffective teaching, few quality intervention services, teachers who are underprepared or unwilling to implement evidence-based interventions and poorly designed education curricula (Miller & Sawka-Miller, 2008). Supervisory partnerships may also be challenged by systemic issues, which may occur when school psychologists' employment circumscribes their role or options for intervention. Further challenges are presented by insufficient funding of education and educational resources and of the time and resources to cover supervision (i.e. Thielking et al., 2006).

Supervision of psychological services in schools is additionally complicated by the interdisciplinary nature of personnel who have roles supporting students' education, pastoral care and mental health. For example, schools may have counsellors, school chaplains and educational welfare staff providing mental health services. Such complex interdisciplinary relationships require well-informed, ethically sophisticated, management

Table 1 Supervisee topics

At this level	A supervisee might consult their supervisor about
Individual	Strategies to conduct observations and gather data on development, learning, challenges and educational and emotional status
	Diversity and individual differences
	Methods to establish a child's strengths, interests and motivators
	Interventions and evaluations
	Strategies to form collaborative relationships and to communicate effectively with the child, parents and educators
	Understanding and promotion of adult-child relationships; how parents and educators may enhance interpersonal skills and techniques
Class	Methods to develop trusting relationships with teachers
	Collaboration skills in supporting and capacity building with educators regarding interventions and individual differences
	Methods to help teachers reflect on progress and review
	Appreciation for the demands on the teacher regarding children's needs and classroom dynamics
	Understanding of human and other resources in the school
Family	Understanding the context of daily family life, the relationship between parents and their individual relationships with the child
	Understanding parental perspectives of the child's emotional state
	Understanding of parental capacity to support the child's learning
	Siblings, extended family and neighbours

(continued)

Table 1 (continued)

At this level	A supervisee might consult their supervisor about
Group or class	Conducting programmes with children, adolescents, parents or educators with issues in common
School wide	Methods to assist the principal and the leadership team in gathering and interpreting information, e.g. impact of transitions on educator knowledge about children's learning needs and adolescent needs/concerns
	Methods to maximise effective curricula and teaching continuity
	Social skills, positive school cultures, behaviour, bullying and inclusion in the student population
Systems	Inclusion versus segregation
	Trajectories of children across their schooling experiences

attention especially, as these personnel often lack preparation in interdisciplinary and transdisciplinary service delivery (Koller & Bertel, 2006).

Professional isolation is a problem for many school psychologists in Australia (Eckersley, 2011) who may be the only psychologist in a school. Restricted opportunities for peer collaboration can increase feelings of isolation particularly when trying to effect change. Strong supervisory support can facilitate the confidence and skill to advocate effectively. Helping to ameliorate isolation issues is especially important when school psychologists work with emotionally charged circumstances such as with parents who behave aggressively, or have mental health or intellectual challenges, and with students manifesting mental health, behavioural and substance abuse disorders. Supervisees' workload, and the depth and complexity of competing demands on them, should be considered when planning how to handle wider school systems issues.

Australian School Psychology Practice and Supervision: Background

Australian supervision has its unique challenges, and little research on its school psychology supervision has been conducted (Thielking et al., 2006). In Australia the term 'school psychologist' is not used in most states and territories (Thielking et al., 2006). Psychologists who work in schools are selected from many backgrounds within psychology. Academic backgrounds may be general, educational and developmental, counselling or clinical psychology (AHPRA, 2013). Some are qualified in psychology only; others are dually qualified in both education and psychology (Thielking et al., 2006). Consequently, the orientation to the job, as well as to supervision and to its requirements, varies greatly.

At least five Australian masters' degrees specialising in preparation of educational or educational and developmental psychologists exist, but these have not been preferentially identified as suitable preparation for school psychologists (AHPRA, 2013). Currently, there are wide variations in levels of education of individuals employed as school psychologists. A survey of 96 Australian school psychologists by Ding and Swalwell (2016) revealed 4 % had PhDs, 70 % had master's degrees and 24 % had qualifications less than master's level.

The eight Australian states and territories have differing amounts of central organisation, regulation and guidance available to school psychologists and employers. Employing bodies and employment conditions vary widely. School psychologists are employed by a state, religious and secular school authorities, community organisations and profit organisations. Employers have differing perspectives regarding the role of school psychologists (Thielking, 2006). Likewise employers' understanding of the roles that school psychologists may potentially provide or support may be incomplete, not evidence informed, or focused on specific parts of schools' needs (Eckersley, 2011). Such factors influence the opportunities that school psychologists have to exercise the range of their skills and competencies and thus their needs for supervision and self-care.

Working conditions for school psychologists vary considerably as well which is likely to impact the range of their practice activities (e.g. an increased proportion of crisis care is likely with increased numbers of schools) and their

need for self-care. Ding and Swalwell (2016) found the number of schools and size of school populations served by school psychologists were highly varied, with 23 % providing services in 1 school, 36 % in 2–5 schools, 19 % in 6–10 schools, 8 % in 11–20 schools, 6 % in more than 20 schools and 8 % providing services in a varying numbers of schools across the year. About half (52 %) of the psychologists reported supporting less than a school population of 1000 children, whilst 43 % provided services for between 1001 and 5000 children, and 5 % provided services for more than 5000 children.

With such a range of backgrounds and work settings, school psychologists' roles and responsibilities vary considerably even within states. In Ding et al. (2016) study, most frequent services provided were parent consultation, guidance and counselling (82 %), student counselling (80 %), student behaviour guidance (80 %) and student learning/disability assessment (78 %). Least frequent were teacher guidance/counselling (58 %) and school-wide programme development/evaluation (55 %). It should be noted that because there is not a standardised curriculum for school psychologists in Australia, the degree to which the practitioners have been trained in the above areas would have varied widely.

Nonetheless, school psychologists are prepared to be skilled practitioners across all types of service provision. By July 2016 in addition to their university qualifications and positive supervisor evaluations, all newly registering psychologists will be required to pass the Australian Health Practitioner Regulation Agency (AHPRA) exam based on specified competencies (AHPRA, 2013). The tested competencies, generic to all psychologists, include: knowledge of the discipline; ethical, legal and professional matters; psychological assessment and measurement; evidence-based interventions; research and evaluation; communication, collaboration and interpersonal relationships; working in cross-cultural contexts; and practice across the life span. Standards to assess intern progress against psychological practice competencies are being developed.

Supervision Regulations and Expectations for Australian School Psychologists

Psychological practice in Australia is regulated by AHPRA, which consults with the APS, the government, the community and the field in development of regulations. The Australian psychologists' supervision regulations (AHPRA, 2013) are quite prescriptive and apply throughout practice. Whether they are newly developing provisional psychologists (i.e. with at least 4–5 years training in psychology, but not yet registered to practise independently) or whether endorsed in psychology and have many others learning from them, all psychologists must be involved in individual and/or peer supervision.

AHPRA mandates different proportions of individual and group supervision depending on experience. Provisional psychologists (hereafter referred to as interns) must receive a minimum of 1 h of supervision for every 17.5 h of practice, with at least two thirds being individual and the remainder being either individual or group. At least 50 % of individual supervision must be with an appropriately practice-area endorsed supervisor (AHPRA, 2013; note there is no practice area is dedicated to school psychology in Australia). Practising psychologists seeking endorsements, such as those working toward becoming an endorsed supervisor, must receive formal training in supervision. This consists of attending professional development activities, passing an examination and submitting audiovisual evidence of their supervisory practices for review (AHPRA, 2013).

In their survey, Ding and Swalwell (2016) found school psychologists were relatively experienced with half (50 %) of the 96 respondents having more than 10 years of experience compared to 21 % with less than 5 years of experience. Of the group, two thirds (64 %) were identified as supervisees, 38 % as supervisors and 9 % as both supervisors and supervisees. However, of those receiving supervision, about two thirds (66 %) were not supervised by an appropriately endorsed supervisor, thus

restricting their capacity to progress to endorsement or supervisory status. Lack of suitably trained and endorsed supervisors is concerning for school psychology's future, especially given the increased supervisor training requirements and obligations on supervisees proposed by AHPRA for 2018 and beyond.

Most (76%) of the supervisees reported receiving individual supervision and that supervision was available in a timely fashion when needed (85%) (Ding and Swalwell, 2016). Contrary to previous information (Thielking et al., 2006), most often (75%) the employing organisation provided the supervision. Only 16% reported that they paid for their individual supervision. However, about a quarter of the group (24%) reported participating in five or less supervision sessions per annum. The frequency and availability (84%) of peer supervision groups was less concerning. Of those receiving peer supervision, the majority received it at least once a month (3% weekly, 28% fortnightly and 38% monthly), whilst the remaining 32% met less frequently. Seventeen per cent were not accessing group supervision, and only 6% reported that none was available.

The isolation of Australian school psychologists was shown in that a concerning 8% reported that they could consult either one or no other psychologist (2% reported they had no psychologist to consult) whilst a third (33%) were well connected having six or more psychologists to consult. Additionally, almost a quarter (22%) reported no psychological support available within their organisation. A significant subgroup of school psychologists appear to be substantially reliant on their own and non-psychology resources for support, which could impact on factors such as their stress levels, reflective practices, recognition of burnout and practice innovation.

In Ding and Swalwell (2016), half (49%) the respondents had supervision from a senior psychologist who was also an administrative supervisor. A senior psychologist who was not an administrative supervisor provided supervision for 13%, whilst 25% received supervision from an external psychologist, and 13% reported various other arrangements.

Supervision and Adult Learning

New evidence informs the best ways to promote adult learning, enhance skills and promote their sustained use (Armistead, 2014). Listening to lectures and reading have been shown to be generally ineffective in producing behaviour change (Lam & Yuen, 2004), unless they are part of systematic planning, experiential learning, monitored skill use and generalisation (Milne et al., 2003). Based on a meta-analysis of available evidence, Dunst and Trivette (2009) developed the Participatory Adult Learning Strategy (PALS) model. They found that procedures with the greatest likelihood of adults (individuals and groups) sustaining and effectively using new skills included planned PD, presentations integrated with group discussion, followed by active preparation for testing application, supported implementation, reflection and after further discussion, repeated trials and ongoing expert mentoring support. Supervision can and should be embedded into PD practices in line with adult learning theory to enhance the learning to implementation process (see Fig. 3).

Once psychologists have had training about a new evidence-based practice, they will benefit from discussion with peers and their supervisors to consider how it might apply in their circumstances. Then they may rehearse it with them prior to trying it out in practice. Subsequently, further review with supervisors and peers will assist reflection to ensure that new practices become part of each practitioner's repertoire rather than being discarded or never tried due to an individual's unresolved implementation confusions.

Preparing for Supervision

Prior to a supervision session, it is essential for the supervisee (and supervisor) to allocate time to reflect on recent work. Preparatory questions that can also be used to prompt discussion during supervision might include:

1. Of the supervisee's recent activities, what needs discussion?

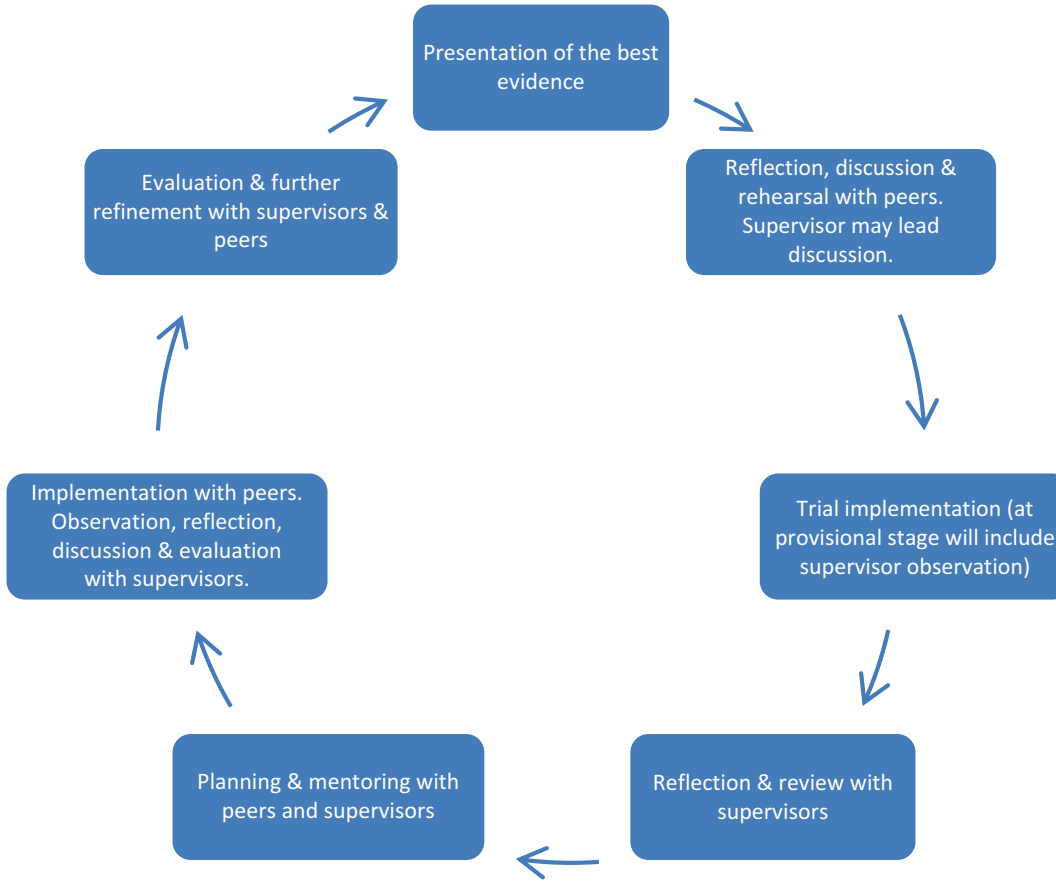

Fig. 3 Integrating supervision with professional development

2. What has challenged or exceeded their knowledge, skills, personal values or ethics?
3. Is the supervisee receiving referrals appropriate to the needs of the school and children or adolescents? Is the supervisee receiving referrals appropriate for their knowledge and skills?
4. What type of referral (individual, group or systems) is being made?
5. At what level (individual, group or systems) are they responding to referrals? Are these responses appropriate? For whom?
6. Which referrals or processes (whether related to an individual, group or system) need to be discussed in supervision?
7. What competencies could the supervisee develop to assist the school and its population?
8. How is the supervisee progressing with the plans and goals they have set?
9. In relation to *all* the supervisee's immediate professional issues, are they able to frame an appropriate question (or questions) for the supervisor? If not, is the difficulty in creating or in posing the question? For example, does the supervisee feel safe in expressing their vulnerabilities or worries? If not, how can this be addressed by the supervisee or supervisor?

When preparing to discuss an individual case or circumstance in supervision, it may be helpful to use the prompts presented below, which expand the 4Ps of case formulation to 7:

(a) What is the **presenting** problem? How is the problem understood by the referrers? Who holds problem ownership? What is the referral question to be addressed?

(b) What are the **predisposing** factors? What contributes to this issue/referral question arising? Can the supervisor assist the supervisee to increase understanding of theory, evidence about mechanisms or associated factors contributing to this referral?
(c) What are the **precipitating** factors? What led to the referral now, rather than some other time, or to someone else, or via alternate processes? How does the supervisee know this? Should precipitating factors be discussed with the referrer?
(d) What are the **perpetuating** factors? Is the supervisee clear about what prevents those who are involved from solving the matter themselves? What would help them achieve self-management? How could the supervisee increase appreciation of these issues?
(e) What are the **protective** factors? What strengths, capabilities, processes and resources are available in working toward a positive resolution of this issue? How can the supervisor help develop the supervisee's skills in supporting these features?
(f) What **programmes**, interventions or approaches has the supervisee adopted? What evidence led to these being adopted? Are there local circumstances that require modification of evidence-based practice? Is the supervisee gathering practice-based data?
(g) How does the supervisee assess **progress** and outcomes in cases/issues referred? Is the supervisee seeking regular feedback from referrers and clients? How do they chart progress to assess when they need additional support or to refer on? Do they chart outcomes?

Providing Effective Supervision

In the authors' experience, it is helpful to group the components known to be associated with effective supervision into three overarching topics: building and maintaining a strong collaborative and collegial supervisory relationship, adopting a problem-solving approach that involves expanding horizons and setting high yet attainable goals and creating and using effective evaluations and progress monitoring, including self-appraisal. Each is addressed below.

Working Alliance, Collaboration and Supervisee Satisfaction

A strong collegial supervisory relationship, or working alliance, is essential for effective supervision as evidenced in the survey conducted by Ding and Swalwell (2016). The most frequently sought characteristic in a supervisor was 'a listener able to help clarify issues and develop approaches' (72 %), followed by 'experience in school psychology' (61 %) and 'skill building, instruction and mentoring' (58 %). Somewhat surprisingly, least sought supervisory characteristics were 'knowledge of the school psychology literature' (19 %), 'counselling skills' (21 %) and 'organised planning approach, clear goals and outcomes' (22 %).

A positive supervisory alliance builds trust and relational connections that develop through working toward mutual goals and tasks. The strength of this bond is related to the likelihood that the supervisee will adhere to supervisor recommendations (Bernard & Goodyear, 2008), an increase in work satisfaction and decrease of work-related stress (Sterner, 2009; Thielking et al., 2006), self-efficacy in school psychology interns (Trangucci, 2013), a higher degree of complementary interaction in counselling supervision dyads (Chen & Bernstein, 2000), supervisee satisfaction (Ladany, Ellis, & Friedlander, 1999), supervisees' perception of the quality of the relationship and positive outcomes for supervision, services provided and student functioning (Gray, Ladany, Walker, & Ancis, 2001; Perrotto, 2005).

Unsurprisingly, the supervisory alliance and supervisee satisfaction are related (Ladany, Ellis,

et al., 1999). A positive supervisory relationship and delivery of direct, immediate feedback contributes to overall satisfaction (Tarquin & Truscott, 2006). Supervisory partnerships should explore the supervisee's feelings of freedom to report difficulties. Mehr, Ladany and Caskie (2010) found a distressingly high (83%) of school psychologist supervisees, admitted non-disclosure with their supervisors. This figure is distressingly high. Supervisors should continuously check on the supervisory alliance to ensure that all supervisees feel the trust needed to ensure open disclosure of professional issues.

To create effective working alliances, supervisors employ the same basic, effective communication strategies (attending, reflecting, responding and following up), which are used when consulting with teachers, parents and administrators. Respect is demonstrated when supervision sessions are scheduled at mutually convenient times, when supervisors avoid interruptions during sessions, when supervisors listen with focused attention and when they reinforce understanding with oral and written summaries at each session's conclusion.

Case Study 1

An intern is frustrated about not receiving adequate supervision. She has not received the requisite hours of supervision, nor does she feel that she is getting help dealing with challenging cases. The supervisor insists on supervision sessions occurring after school, which conflicts with the intern's personal commitments to child care. Furthermore, during supervision sessions, the supervisor multitasks by responding to emails, answering phone calls and allowing interruptions by teachers and administrators. The supervisor thinks this gives the supervisee the opportunity to observe her modelling effective practice.

In order to avoid these issues:

High-quality supervisor practice	High-quality supervisee practice
The supervisor always communicates the importance of supervision to the supervisee by allocating the time exclusively to supervision. When preparing for supervision, the high-quality supervisor prepares their thinking and reviews the individual needs and recent issues of the supervisee. Their supervision plans are specific and include two-way reflection on the supervision sessions, issues resolution and conciliation processes, along with revision times and triggers.	In order to avoid miscommunication, the supervisee should state their needs and expectations clearly especially if they feel that these have not been sufficiently addressed during supervision planning. The supervisee can proactively ensure that an issue resolution process is included in their plan. When they are concerned, they should address it directly and positively rather than remaining passive or waiting for the supervisor to notice.

Within a supportive supervisory relationship, it can be important for supervisors of school psychologists to 'make the invisible visible' (Proctor & Rogers, 2013). That is, within the supervisory relationship, the supervisor will need to raise the issue of power differences inherent in the supervisor/supervisee relationship. They will also need to initiate conversations regarding differences and similarities between them in terms of theoretical orientation, communication style and their

understanding of the meaning of mental health and mental illness. These conversations are particularly critical if the supervisee and supervisor have cultural differences.

Similar culturally responsive conversations need to occur regarding cultural differences between the supervisee and clients; culturally responsive supervision is associated with improved supervision and client outcomes (Bernard & Goodyear, 2008). When working with teachers, parents and administrators, psychologists commonly experience diversity relative to age, cultural ethnicity, race, class, religion and disability. Supervisors address these issues by arranging broad ranging case studies and readings, asking supervisees to review role-plays and recordings for their sensitivity and language biases, ensuring that assessment tools address multiple facets of ability and respect cultural and linguistic diversity and helping supervisees adapt their communication styles (Ng & Smith, 2012). In terms of sexual orientation, it is helpful for supervisors to guide supervisees as they learn to provide support for students of diverse sexual orientations, to create a safe environment for self-disclosure and to address issues such as coming out, maintaining relationships and dealing with homophobia. In turn, supervisors model a safe environment within the supervisory relationship and help supervisees appreciate the implications of their own sexual orientation in working with parents and school personnel (American Psychological Association, Committee on Lesbian, Gay, and Bisexual Concerns, 2000; Long, 1997).

Expanding Horizons and Setting Goals

Effective supervisors expand the approaches and perspectives of supervisees by collaborating in setting high yet attainable goals, agreeing on instructional strategies, presenting material didactically and/or experientially, assessing learning outcomes, giving constructive comments and promoting professional growth and self-assessment. Effective goals are both long and short term and consider needs in supervision and beyond. To ensure common understanding, goals and time frames should be written and specify activities. Supervisor feedback is best when written and when supervisors seek feedback from supervisees to ensure their understanding. After supervision on a specific topic, the supervisor should check progress episodically, evaluating both processes and outcomes (Carroll & Gilbert, 2011; Maeschalck, Bargmann, Miller, & Bertolino, 2012).

Short-term goals for each session maintain focus and improve effectiveness. Completing a simple rating form after each supervision session, on which the participants rate the effectiveness of each session, provides ‘continuous feedback’ and improves outcomes (Reese et al., 2009). Long-term supervision goals should clarify expectations, outline responsibilities, indicate procedures for issue resolution and include methods to measure the performance of both supervisor and supervisee.

Setting goals appropriate to the learner’s development is critical to effective supervision (see Fig. 4). Several authors have investigated developmental trajectories across different professions and have found that the supervisees’ emotional reactions and manner of thinking change over time (Harvey & Struzziero, 2008). Supervisees shift from rule-based to intuitive behaviour, from analytical to holistic perspectives and from being highly anxious to having increased self-confidence. Attaining expertise requires at least 5–7 years of experience even with direct feedback (Mozdzierz, Peluso, & Lisiecki, 2014).

Stoltenberg and McNeill (2010) explored the characteristics and abilities of interns, finding that their needs varied predictably with their level of experience and that their supervision requirements changed accordingly. Novice practitioners benefit from supervisors who provide structure, supervise closely, assign simple problems and cases, focus on strengths, mention positive qualities before offering feedback and provide opportunities for role-play, interpretation of dynamics,

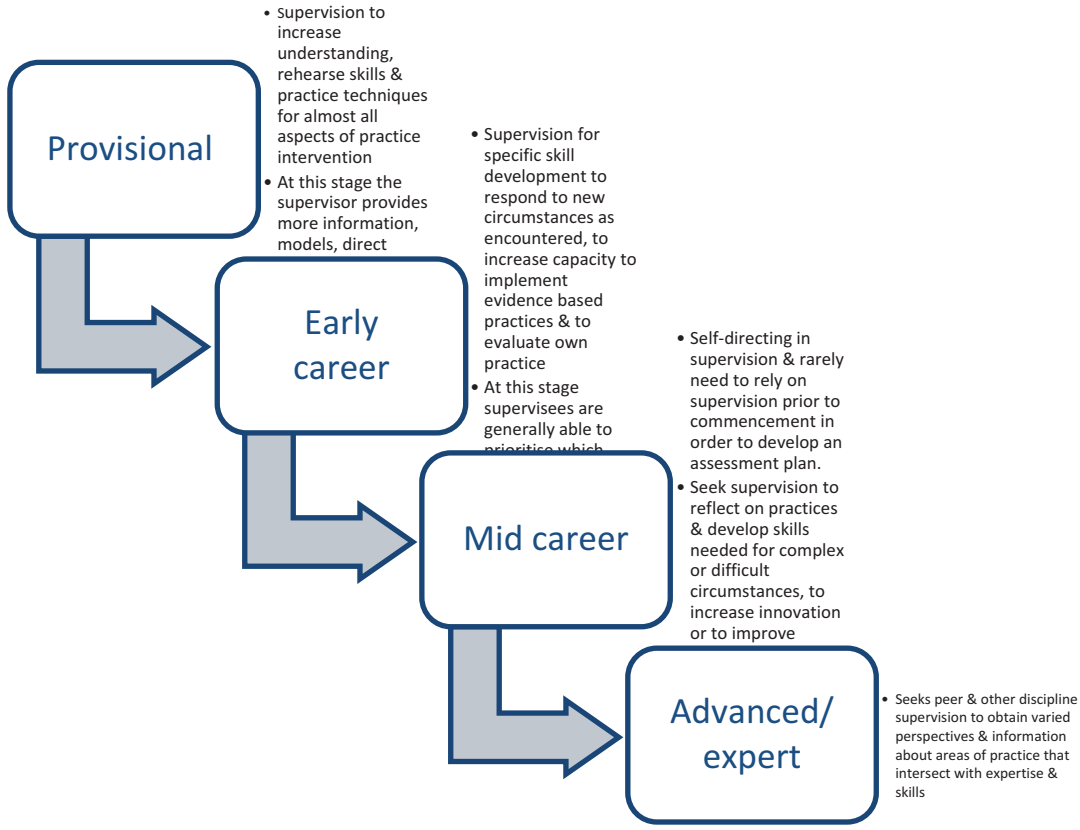

Fig. 4 Supervisee development and consequent supervision requirements

readings, shadowing and collaborative work. More proficient supervisees benefit from structuring the supervision sessions themselves, focusing on more challenging cases, using peer and group supervision, developing pattern recognition and systematic thinking and acquiring additional models, methods and techniques.

Helpful Professional Performance Evaluations

Establishing the effectiveness of professional practice is essential for service quality as well as for ethical practice. Potential methods include performance evaluations, which can be conducted by the individual themselves using self-reflection, by the supervisor using a professional performance evaluation and by questionnaires given to others. Appraisals of professional performance determine whether the school psychologist has knowledge, skills, behaviour and outcomes that meet professional standards, adhere to regulations and result in services that have a positive impact on the functioning of students, staff and the school(s) (Newman, 2014).

Case Study 2

A supervisee approaches his supervisor saying that he would like to begin preparation to become a supervisor. He has found a convenient training course and understands that, in order to become approved, the process involves studying, passing an examination, commencing to supervise and submitting excerpts of recordings from

supervision sessions (see AHPRA Guidelines, 2013). He asks the supervisor to supervise him during this time. *What should they discuss? What issues would it be appropriate for the supervisor to consider?*

High-quality supervisor practice	High-quality supervisee practice
The supervisor should assist the supervisee to review their professional development and practice to ensure that they have the skills necessary to support other psychologists. Any gaps can then be addressed in further supervision For example, they can help supervisees to review video examples of mentoring others reflecting on whether they are demonstrating the skills to support others' self-reflection	Supervisees should bring *The guidelines for becoming a supervisor* (AHPRA, 2013) to supervision to discuss how they apply to their progress and circumstances Having located a suitable supervision-training course, the supervisee should rehearse their skills with their supervisor. Videotaped supervision sessions can become topics for supervision in preparation for presenting them for assessment

Performance evaluation methods used by supervisors should be as reliable and valid as possible, avoid biases and not be affected by their personal characteristics or factors outside the individual's control. The best performance evaluations are based on behaviours or outcomes rather than on attributes (Masui & De Corte, 2005). For example, behaviourally anchored rating scales operationally define excellent, satisfactory and unsatisfactory performance, and they easily result in clear and specific goal setting. Also, including student outcome data in a psychologists' own evaluation appropriately increases focus on improving students' behaviour and learning. For example, graduates of NASP accredited academic programmes are required to provide evidence of skills in outcome evaluations, usually employing single-case study methodology in which they collect three data points during baseline and then collect weekly data to determine intervention effectiveness.

To this end, a competency-based evaluation to help describe progress of interns is being drafted by several training authorities in Australia (AHPRA, 2013). These competencies inform the AHPRA registration exam. AHPRA also proposes the establishment of baseline competencies for early career, mid-career and expert psychologists, which will aid supervision by providing contextual bases for reflecting on development and skills.

Avoiding Ineffective Supervision

Supervision is not always effective, and an effective supervisory relationship will not remain so indefinitely (Ramos-Sanchez et al., 2002). Magnuson, Wilcoxon and Norem (2000) found features of ineffective supervision were an overemphasis on parts of supervision at the expense of others, developmentally inappropriate supervision, intolerance of diversity, poor professional or personal attributes, poor training and apathy. Whilst some negative experiences result from inappropriate behaviours of supervisors, most ineffective supervision can be avoided by shunning overly critical feedback, insensitivity, lack of cultural awareness (Hunley et al., 2000; Inman, 2006), supervisors' unethical behaviours (Ladany, Lehrman-Waterman, Molinaro, & Wolgast, 1999), supervisors devaluing practices and unresolved differences in expectations (Harvey & Struzziero, 2008).

Effective problem-solving and conflict resolution strategies should be employed as soon as issues emerge to prevent escalation. Regardless of the stage of supervisee development, effective supervision encourages autonomy, strengthens the supervisory relationship and facilitates open discussion, whilst ineffective techniques depreciate supervision and result in ineffective client conceptualisation and treatment (Ladany, Mori, & Mehr, 2013). If conflicts are unresolvable, supervisees need processes and authority to seek alternate supervision. Over time supervisees' needs change as they develop and encounter new professional challenges. Both supervisor and supervisee must plan for the need for change and be prepared to renew, adjust and end supervisory relationships as appropriate.

Promoting Self-Care

Developing self-care strategies is a form of self-regulation and self-supervision. School psychologists are often in stressful positions requiring insight, reflection, self-awareness and strong interpersonal communication skills. They need clarity of thought and careful measured communication to create and maintain collective understanding of appropriate professional responsibilities, limits and boundaries. Their responsibilities tend to be school or sub-school wide, which means they may support children, educators, schools and families over many years. Thus whilst they may observe, gain insight and even kudos from the flow-on effects of their professional input, inevitably they also see some issues re-emerge or remain unresolved. Complex, enmeshed challenges can persist and recur in workloads for years (Miller & Sawka-Miller, 2008).

Especially when challenges persist, the toolbox school psychologists rely on is themselves and their knowledge, skills and resources, including their networks and supervision. Capacity for independent perceptions, insights, self-regulation, flexibility (in thought and techniques) and resourcefulness can assist them to address ongoing challenges (Lazarus, 2000). Additionally, their skills in collaboration and teamwork motivate others to address challenges afresh with renewed energy and commitment. Attending to school psychologists' personal and professional wellbeing fosters the positivity, persistence and resilience they need to fulfil their complex responsibilities (Dlugos & Friedlander, 2001).

Harvey (2005) compared school psychologists' supervision experiences, workplace characteristics, role and functions and methods of stress management with job satisfaction and burnout. Features associated with high job stress were both tangible and intangible. Tangible features included little possibility of promotion, overwhelming time demands, inability to change responsibilities, poor job structures, excessive workload and clerical issues. Prominent among the intangibles were incongruence between supervisor and supervisee values, poor match between responsibilities and professional expectations, incongruence between policies and school psychologist's values, dissatisfaction with feedback and guidance, supervisors with poor interpersonal skills, administrators' lack of understanding of school psychology or special education and lack of interest in work quality.

A number of studies have examined the self-care strategies used by psychologists. Turner et al. (2005) found that interns most frequently employed social supports, active problem-solving, humour and seeking pleasurable experiences. Psychologists who are energised and invigorated by their work are skilful in stress management (Dlugos & Friedlander, 2001). To counteract practice stressors, Lazarus (2000) recommends regular self-assessments focussing on the activities, emotions, sensations, cognitions and interpersonal experiences the psychologist wants to alter. Harvey (2005) recommended:

Maintaining a positive attitude at work by focusing on successes; emphasising the most important aspect of the job (i.e. helping students); seeing interventions through and following up with clients; taking breaks at work, including a full lunch break; staying calm and not taking things personally; and fostering a sense of humour.

Setting limits at work by separating home and work life by writing reports at school, being appropriately assertive with others, saying 'no' to unreasonable requests and loads, fostering realistic expectations, realistically assessing time requirements of new tasks and establishing boundaries regarding which features of the role are the current priority.

Practising good time management by scheduling consultation sessions, reports, phone calls and emails; minimising time travelling by having regular schedules for locations and clustering appointments; daily reorganisation so that materials are readily located; minimising procrastination and reducing distractions so tasks are completed speedily; using organisers and checklists; and using technologies such as Skype for between visit catch-ups.

Fostering personal resiliency through social time with friends, family and non-school-based

networks; reading for pleasure and enjoying hobbies, especially those with tangible results; exercising regularly; practising mindfulness; eating healthy foods; getting plenty of sleep; and laughing! Many school psychologists feel they benefit from PD not related to their profession such as art, music and hobbies. The latter encourage creativity and intellectual stimulation to counterbalancing routine work life (Harvey & Struzziero, 2008).

Fostering professional growth by adding job complexity or rotation, mentoring or supervising others, adopting new challenges, peer support group collaborations especially with a focus on problem-solving or building new skills, creating PD plans that have coherent organisation and employ effective learning strategies and participating in related fields' PD (e.g. education, speech pathology, leadership, mediation and family therapy).

Developing a network of professional colleagues and reducing isolation by fostering friendships with educators, administrators and specialists, as well as with other psychologists; participating in peer supervision groups; linking with professional organisations; and building professional, trusting alliances with educators (Amatea, Daniels, Bringman, & Vandiver, 2004).

Ethics, Supervision and Self-Care

School psychologists work in a labyrinth of extremely complex ethical challenges with no simple resolution. Additionally, school psychologists adhere to the ethical and professional practice standards of psychology whilst working in settings that may not have those standards as a priority. Discussing challenging cases in supervision, among colleagues, or in peer supervision can be very helpful. Often the multiple complex responsibilities of school psychologists to children, teachers, parents and school administration require clarifying to whom the school psychologist is responsible: any psychologist has primary responsibility to the client, but who is the client when a teacher or school administration seeks help? An illustration of these ethical and procedural complexities follows.

Case Study 3

A recently graduated school psychologist, working with a remote supervisor and whose next supervision session is not scheduled for another week, receives a referral from a teacher. Three 14-year-old girls have told a teacher that they have a pact and are cutting themselves at home at night. This is the first time the school psychologist has encountered such a problem. *Consider: Whom should the psychologist speak to first (*e.g. *parents, teachers, each girl, the supervisor or a mental health worker)? Is there someone to whom the psychologist has an obligation to speak? What hypotheses might they hold and how could they be confirmed/disconfirmed?*

High-quality supervisor practice	High-quality supervisee practice
As soon as possible, meet with the supervisees to ensure that they have explored possible scenarios behind this referral, take considered actions and feel appropriately supported Help supervisees plan their appointments and role-play possible scenarios so that they are appropriately prepared to respond as the situation unfolds	Initiate seeking support from a supervisor as soon as possible to ensure that considered action is instigated Bring background information to supervision Once the supervisee has relevant information and understanding of possible issues, discuss findings carefully with parents to ensure protection for the girls and to develop a plan of action

Concluding Remarks

In the field of school psychology, the importance of quality supervision and of meaningful self-care is gaining increasing recognition (Ding and Swalwell, 2016). Australian regulations support this trend, and upcoming requirements further prioritise quality supervision. However, challenges endemic to the practice of school psychol-

ogy and the provision of supervision in educational settings, as well as increasing expectations on psychologists, have the potential to undermine the strength and ongoing advancement of the field.

This chapter has provided evidence demonstrating the need for ongoing supervision and self-care in school psychology. Whilst most evidence has been derived from countries other than Australia, the evidence from Ding and Swalwell (2016) and from Thielking (2006) did not find that supervision issues in Australia are significantly different from or in advance of school psychology in America or other developed countries. On the contrary, it suggested the need for active vigilance and monitoring of trends, to defend the health and wellbeing of the field, school children and individual practitioners. Research has established the value of and clear parameters for effective supervision and self-care to promote high-quality practice and school psychologists' wellbeing.

Test Yourself Quiz

1. If you were talking to a school principal who was questioning the need for school psychologist supervision, what would be 5 key reasons why supervision is integral to school psychologists' roles?
2. How can supervision be utilised to evaluate the effectiveness of a school psychologist's interventions with students or the school?
3. How can school psychologists utilise technology to receive or provide supervision?

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Future Directions in School Psychology in Australia

Monica Thielking and Mark D. Terjesen

The Handbook of Australian School Psychology: Integrating International Research, Practice and Policy (from hereon referred to as the Handbook) presents the current state of the science and practice of school psychology with a focus on the standards of practice in Australia. The history of school psychology and the development of the field globally provide a useful vehicle for better understanding current Australian practices including the critical role of multilevel intervention across client, school, classroom and system. In particular, the Handbook addresses the areas of assessment, prevention, treatment/intervention and consultation as they relate to specific educational and mental health issues amongst students in schools. In addition to child-specific disorders, the Handbook chapters have provided evidence-based practices for working with parents, integrating positive psychology into school-based practice, as well as working with students with medical issues, gifted students and special groups such as gay, lesbian, bisexual, transgender and intersex youth, thus reflecting a broader view of the diversity of professional practices in which school psychologists may engage than has previously been covered.

A number of chapters provide insights into school psychology training with respect to cultural competence and ecological dimensions. Promotion of leadership and advocacy, utilisation of technology, and developing systems to measure impact of various interventions and supervision in the field are essential in considering the future development of the field in Australia and globally. What this reveals is that school psychology is a unique, multifaceted and multiskilled area of work within the broad domain of psychological practice. It is also a much needed and valuable service for students, families and teachers alike. It is important that the educational community values this resource available to schools, which together with teachers, provides high-quality, professional and evidence-based interventions to improve students' social, emotional, behavioural and educational engagement and outcomes.

This chapter draws together many of the themes of the Handbook and highlights a number of areas that we think are important for the field of school psychology globally and in Australia, and we offer a number of key recommendations for the future of the profession.

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A Hidden Profession

There is a strange and unacceptable paradox within the Australian school psychology profession with respect to its existence within the overall psychological professions and in education more generally. On the one hand, school psychologists can be found throughout Australia, in both primary and secondary schools, and in all three education sectors: government, independent and Catholic. On the other hand, for the most part the Australian education sector, and even within psychology itself, there has not been a committed effort to nationally formalise the school psychology profession in its own right. This is in sharp contrast to what has occurred internationally.

Whilst most psychologists in Australia choose to work in private practice, the education sector is one of the highest employers of psychologists (Department of Employment, see: https://www.employment.gov.au/); however, school psychology in Australia still remains a largely invisible profession. Data regarding the prevalence of school psychologists in Australia is limited. The most recent analysis of employed psychologists' work setting of their main job reveals 'educational facility', which may include university settings as well, as being the main employment setting for over 4000 psychologists, the highest employment setting in the list (Australian Institute of Health and Welfare, 2012, see http://www.aihw.gov.au/WorkArea/DownloadAsset.aspx?id=60129544590). One could well assume that a large proportion of these are school psychologists. Furthermore, whilst it is revealed that the majority of psychologists work in private practice, a number of these will also be working on a fee-for-service contract basis for schools providing educational and mental health services.

The Australian Government's Department of Employment's 'Labour Market Information Portal' provides us with a good example of the level of (non) recognition for the school psychology role within formal training and career domains. The *Industry Outlook: Education and Training* (Department of Employment, Labour Market Research and Analysis Branch, 2014) report reveals that the education sector has experienced strong growth in the past decade and is the fifth largest employing sector in Australia. The report lists all of the various occupations that may be found in the education and training sector, such as principals, teachers, special needs teachers, clerks, receptionists and cleaners. There is no mention of school psychologists. Similarly, typing 'school psychology' into the 'myfuture' website (see: http://www.esa.edu.au/projects/myfuture), celebrated as Australia's largest and broadest-reach career information service, assisting individuals with career planning, career pathways and work transition results in the message 'zero results'. 'School counsellor' gets the same disappointing result. Using the search term 'educational psychologist' directs the user to a page about the overall generic field of psychology, and again psychologists' work in schools is not mentioned. In fact, in another section of the site, and in their list of occupations related to education and training, 27 different occupations are listed, but not school psychologists. It would not be surprising that this lack of formal recognition for the role could have negative consequences on the professional esteem of those who work in this area. In fact, a study of Australian school psychologist conducted almost 30 years ago revealed that school psychologists experienced low morale and felt undervalued (Burden, 1988) and that was before internet was around to publicly acknowledge how this 'profession' does not seem to exist.

To determine the number of psychologists working in schools, the authors commissioned the Australian Bureau of Statistics to cross tabulate the number of respondents at the last Australian Census in 2011 who stated that their occupation category was either student counsellor (may or may not be a psychologist), clinical psychologist, educational psychologist, organisational psychologist, psychotherapist or psychologist *and* worked in either school education, primary education, secondary education, combined primary and secondary education and special education. The results reveal that there were 3076 Australians who stated their occupation was a school counsellor or a psychologist (of various types) and who worked in a school setting.

Recommendation 1: Increase the visibility of the Australian school psychological profession within the education system.

Ensure that the Australian school psychologist profession gets the recognition it deserves by including it in government career information sites and reports, by listing it as a profession within the education sector in the Commonwealth's Labour Market Information Portal and by creating a school psychologist classification in the ANZSCO occupation classifications list collected during the Australian Census.

The School Psychology and Teacher Training Debate

Historically, there has been a requirement for school psychologists in some Australian states and territories to also have a qualification in teaching, such as in the WA School Psychology Service. This requirement was premised on the opinion that teaching gave school psychologists the ability to understand 'school culture' by providing them with teaching experience in classrooms and giving them the necessary knowledge and skills to understand how students learn and how teachers teach, which in turn gives them the capacity to make real-world recommendations about classroom-specific adjustments to improve student learning and outcomes (e.g. Olson & Allen, 1993).

There exists a historical debate about how essential a teaching qualification is to the work of school psychologists dating back to the 1960s (e.g. Farwell, 1961), and this add-on qualification appears to be a requirement that is in phase-out mode within some Australian jurisdictions but not without a fight in some areas. A recent news article published in March, 2016, contains a comment by the NSW Education Minister, The Honourable Adrian Piccoli, that "It shouldn't be a requirement that a psychologist also has a teaching degree and is required currently to have taught for a year…that just simply means it's impossible to recruit schools counsellors and psychologists into our schools. There is a desperate need [for counsellors]. There are great people out there who don't have teaching degrees—psychiatrists, psychologists. We want them working in education" (The Australian Broadcasting Commission [ABC] net News, 2016). Whilst we have not seen a school psychiatrist to date, this comment reveals the need to increase the workforce of registered school psychologists in this particular jurisdiction, which is difficult to do when teaching qualifications are in addition to lengthy training pre-psychologist registration, comprising 6 years of full-time study. It is a controversial issue—and education unions have also weighed into this debate. Some school psychologists are in favour of the teaching qualification requirement in support of the previous claims that it makes them more school ready or that it gives them more credibility in the face of the teaching profession. Others are concerned that removing the teaching qualification requirement will have a negative consequence on the pay and conditions of school psychologists—a profession that is already considered by many as overworked and underpaid.

Research on this issue is limited and somewhat historical in scope, but from what is available, results show that a teaching qualification is not a necessary prerequisite for professional effectiveness in this domain, and the majority of school psychologists with teaching qualifications identify with the psychology profession rather than the teaching profession (Wilczenski, 1997). One study found that school psychologists with previous teaching experience faced more challenges and difficulties adjusting to their new role within schools than those without teaching experience, and a particular concern of former teachers was their difficulty with maintaining clients' confidentiality within a school setting as they felt that other teachers perceived them as no longer 'being on their side' (Sunde Peterson, Goodman,

Recommendation 2: Remove the requirement for school psychologists to have a teaching qualification in order to practise as psychologists in schools.

No studies have revealed that school psychologists need to have teacher qualifications in order to practise effectively. School psychology training should include a high degree of school-specific psychological practice interventions and should also cover the curriculum and pedagogical needs of teachers, but an ability to teach is not necessary for the role.

Keller, & McCauley, 2004). Interestingly, another study found that teachers and principals were unsure about whether or not their school psychologist actually has a teaching qualification (Leach, 1989) showing that being a 'teacher' may not be representative of the skill and competency set that teachers and principals look for in their school psychologists.

In light of the empirical evidence, counsellor educators in the United States affirmed that a teaching qualification is not necessary to the effective delivery of school psychological services (Smith, Crutchfield, & Culbreth, 2001), and this requirement was removed. The roles of school psychologists are multifaceted and are very much influenced by the student: school psychologist ratio and school sector in which they work (Bell & McKenzie, 2013; Thielking, 2006) rather than whether or not school psychologists have a teaching qualification or not. As one author eloquently suggested a long time ago now: "they should not select chemistry teachers for counsellors but chemistry teachers to instruct in chemistry" (Farwell, 1961, p. 40). Therefore, neither school psychologists nor school counsellors in the United States are required to have completed teacher training.

Future Directions in Training

School psychologists come from a variety of postgraduate psychology training backgrounds including generalist, clinical, counselling or educational and developmental psychology. There is no requirement for school psychologists to have any one type of area of practice endorsement or a particular APS College membership over another to work in schools. A recent study of 136 Australian school psychologists who worked in Melbourne found that the majority (68.3%) did not belong to any specific APS College. Of those that did belong to a college, 24.4% belonged to the APS College of Educational and Developmental Psychologists and 7.4% to other colleges (Bell & McKenzie, 2013). Educational and developmental psychology is the most aligned area of study with school psychological practice.

The Australian Psychology Accreditation Council accredits all psychology programmes leading to psychologist registration. Recently they released their Proposed Accreditation Standards for Psychology Programs Consultation paper (APAC, 2016), and in this document the proposed educational and developmental psychology programme competencies covered many school-related psychological activities (i.e. 'principles and models for the learning process, how to identify barriers to learning and means of addressing impediments' p. 23), whilst the traditional whole of lifespan, and the multiple setting aspect of this area of practice, was minimised.

There is an issue, however, in that the current trend in Australian postgraduate psychology study is to complete a Master of Clinical Psychology, which is mainly in response to a government policy that provides higher Medicare rebates to patients who receive psychological services from psychologists with a clinical psychology area of practice endorsement. This means that unless there is an alternative programme that focuses specifically on the competencies required for effective school psychological practice, currently and into the future, clinical psychologists will be the most prevalent group of psychologists graduating from university training programmes

and as a result, working in schools—this is despite the fact that clinical psychology training is not school specific in any way. The trend towards clinical psychology training is evident in the most recent Psychology Board of Australia (PsyBA, 2015) report which shows that in 2015, according to the national register, the top four areas of endorsement for all psychologists in Australia (not necessarily school psychologists) were clinical psychology ($N=7246$), counselling psychology ($N=944$), educational and developmental psychology ($N=612$) and clinical neuropsychology ($N=600$).

As the demand for school psychological services in Australia continues to grow, it is important that there are practitioners being trained in the schools to meet those needs. In countries with highly structured professional training standards, there are expected competencies that training programmes must adhere to in order to ensure that school psychologist practitioners are adequately prepared to work with clients in the school. In Australia, a school psychologist competencies framework has already been developed by the Western Australian Department of Education School Psychology Service (2015). This comprehensive framework was developed to 'support the work of school psychologists and to create lasting avenues for career development and growth for those who enter the profession' p. 4.

The *Competency Framework for School Psychologists* (Western Australian Department of Education, 2015) is based on a construct of five dimensions, each describing the characteristics of school psychologists' work that are central to the attainment of professional effectiveness, these being:

1. Outcome-focused scientific practitioner decision-making (the purpose and rationale of the work undertaken)
2. Intervention and evaluation (what is done and to what effect)
3. Communication, assessing, reporting and providing feedback (communicating and explaining)
4. Partnerships in education (collaborating and team leadership)
5. Ethics, professional learning and leadership (developing self and others) (p. 9)

The framework then describes each competency dimension in detail according to the three 'phases' that school psychologists may be operating at (which is said to be dynamic and variable according to the role activity and the type of professional learning activities the school psychologist has engaged in). These three phases include:

1. Phase one: School psychologists operating in the first phase demonstrate independent application of competencies.
2. Phase two: School psychologists operating in the second phase demonstrate higher-level individual competencies and the capacity to instruct and mentor their colleagues.
3. Phase three: School psychologists operating in the third phase demonstrate exemplary skills, with the capacity to influence the system and the school psychology profession

(p. 10, see: http://det.wa.edu.au/studentsupport/behaviourandwellbeing/detcms/school-support-programs/behaviour-and-wellbeing/behaviour/school-psychology-services/public-content/competency-framework-for-school-psychologists.en?cat-id=6681542).

Psychological training in Australia is rigorous, highly regulated and focused on competency outcomes. Furthermore, entry into postgraduate psychology training programmes requires a combination of exceptional academic results, experience in the field and strong research skills. Current graduates who choose to work in schools bring exceptional intervention, evaluation and consultation skills and are a valuable asset to any educational institution. In states and territories other than Western Australia where strong systems are in place for professional development, career progression and mentoring, there still exists a good network of school psychologists that provide informal and on-the-job mentoring. Notwithstanding this, by continuing to allow a diversity of non school-specific psychological training graduates entry into the profession, with no universal

Recommendation 3: Expand school psychology-specific postgraduate training programmes for entry into the school psychology profession.

This Handbook reveals the vast range of issues that school psychologists are required to deal with in a multilevel way to improve the behaviour, learning and mental health and wellbeing outcomes of children and adolescents in the school setting. It is a unique role within the broader psychology practice framework and therefore requires unique training to build competency and to move the profession forward through the creation of and adherence to research evidence. The redesigning of educational and developmental psychology as a school-focused specialist training programme is promising; such developments in school psychology-specific training should be encouraged Australia-wide.

Recommendation 4: Employ the term 'school psychologist' throughout Australia to describe the unique role of registered psychologists who receive training in and dedicate their careers dedicate their careers to working in schools.

school psychologist competency standards to ensure school psychologists feel prepared and confident to respond to the multitude of student issues that may come their way, there is a barrier to the continuation and development of world standard scientifically based practice, training and research *in* the Australian school psychology context. Furthermore, any attempt to create programmes that prepares psychologists to work in schools should be facilitated by a two-way discussion, between trainers and school psychologist practitioners, as to what are the needs within the field and how training programmes can best prepare future practitioners to meet those needs.

Defining School Psychology

As mentioned on numerous occasions by various authors in this Handbook, in Australia, school psychologists have a number of titles. In addition to 'school psychologist', they may also be called educational psychologists, school counsellors or guidance officers. The latter two titles are not exclusive to registered psychologists, and these roles are sometimes filled by teachers, social workers or counsellors. However, to allow the school psychology profession to be a hybrid combination of other non-psychological professionals is inappropriate and creates confusion for the consumer or recipient of such services.

By formally recognising the skills and competencies of registered psychologists who have dedicated their careers to work in schools and who bring a scientist-practitioner framework to their work, guided by a legislated Code of Ethics and regulated by the Australian Health Practitioners Regulation Authority (AHPRA), with formal complaints mechanisms in place to protect the public from unsafe practice, the term 'psychologist' in the title should be used by the school and professional alike with pride. A formal title and definition of school psychology that is universally accepted throughout the country that would guide training and registration area of practice endorsement is essential for the profession to continue to develop and thrive.

As a helping profession, research reveals that school psychologists are highly valued by the educational community (ACT Department of Education Youth and Family Services, 2003; Gibson, 1990) but are perhaps not always well understood. For example, a study of attitudes towards school psychologists in Victoria, Australia, revealed that 95% of teacher respondents believed that it was important for students to have a school psychologist on staff; 86% reported that their teaching was supported by a school psychological service; and only 2% questioned the need for school psychologists (Thielking, 2006). In this same study, there were significant differences, however, in what teachers, principals and school psychologists believed were the specific activities that make up school

Recommendation 5: That the school psychologist profession, professional psychological associations and the educational community advocate for the necessity of school psychologists in schools. In order to minimise role confusion, that all stakeholders apply the definition contained within the Competency Framework for School Psychologists (Western Australian Department of Education, 2015), which describes school psychologists as providers of specialist support to school staff in the areas of student behaviour, learning and mental health and wellbeing.

psychologists' roles, with some of these differences in opinion could justify as red flags for future ethical dilemmas.

A later replication of the Thielking (2006) study by Bell and McKenzie (2013), which also included the addition of parents in the sample, found that 7 years later confusion about the role of school psychologists was still evident. Whilst shared perceptions did exist for some role activities (i.e. be up to date on relevant research), there were also significant differences in perceptions that may lead to ethical dilemmas relating to role boundaries, confidentiality, informed consent, dual relationships and relationships between teachers and school psychologists. It is concerning that this study found that many parents were of the view that school psychologists engage in career counselling, rather than psychological therapy or assessment. This has implications for how the profession is viewed by the educational community, the level of trust given to this profession regarding the confidentiality of information acquired in this role and for facilitating timely referrals to the school psychologist for assessment and intervention.

The Australian Psychological Society, in their *Framework for the Effective Delivery of School Psychological Services* (2013), employs the following to describe the role of school psychologists:

> School psychologists apply their psychological and educational expertise to support students to achieve academic success, psychological health, and social and emotional wellbeing. To achieve these outcomes, the activities that school psychologists engage in are diverse and include counselling, consultation, assessment, implementation of prevention and intervention programs, referral processes, evaluation and the management of critical incidents. School psychologists also provide information and psycho-education to student populations, school staff, departmental staff, parents/guardians and external stakeholders. School psychologists endeavour to work in a consultative, resourceful and supportive manner with parents/guardians, teachers, school administrators and external health service providers. School psychologists always work with the primary purpose of achieving the best outcome for students. (p. 4)

As a way forward, one role activity for school psychologists and related stakeholders (psychology and education) should be to inform and educate the school community on what it means to have a school psychologist on staff, and this would include providing information about psychologists' ethical, professional and legislated responsibilities. The APS has begun work in this area, which should be commended. Their YouTube clip titled *How school psychologists benefit students and school communities* (2015) is a good start (see: https://www.youtube.com/watch?v=koUBpy1hyeQ).

A simple but effective definition of school psychologists' role is encapsulated in the *Competency Framework for School Psychologists* (Western Australian Department of Education, 2015), which states: "school psychologists provide specialist support to school staff in the areas of student behaviour, learning; and mental health and wellbeing" (p. 5). This one sentence encapsulates the work of school psychologists well.

Broadening the Work of Psychologists in Schools

In order to respond effectively to the prevalence and complexity of student need, the Australian Psychological Society (APS) has recommended a school psychologist-to-student ratio of 1:500 (APS, 2013). As revealed in Faulkner and

Recommendation 6: In the interest of having the most comprehensive psychological expertise in schools to support teachers in improving student behaviour, learning and mental health and wellbeing, that the education community strives to fulfil the minimum requirement of 1 full-time school psychologist to 500 students ratio in all Australian schools.

Jimerson's chapter in the Handbook titled *National and International Perspective on School Psychology: Research, Practice and Policy*, this ratio is currently not being met in Australia and internationally. This is unfortunate, as it means that schools are not benefiting from the broad range of skills that school psychologists have to offer to students, parents, teachers and education systems alike.

One point of difference for school wellbeing professionals with psychologist registration is that they are able (and often required) to conduct psychological and educational assessments, mostly to assess for student learning disabilities so that the school has access to additional funding to support the child or young person to meet their learning needs. This method that attempts to understand and pinpoint the exact nature of a student's difficulties or strengths is an important and necessary activity, with devastating consequences for the student and their family if differential learning and/or mental health needs are not identified early and evidence-based school and home-based interventions are not implemented according to what we know works. However, a number of studies have now shown that the greater number of students that school psychologists are responsible for (and who are further away from the APS recommended ratio of 1:500), the more they spend their time conducting assessments, and the less time they have participating in other psychological interventions such as student counselling or consultation activities (e.g. Bell & McKenzie, 2013). However, as seen in this Handbook, the role of school psychologists can be so much broader than a purely assessment or crisis-driven role and can achieve so much more in relation to student engagement, community engagement and student and staff wellbeing, if time and resources permit.

To assist in measuring the extent of a broader model of service delivery, than a pure assessment or 1:1 counselling role, Thielking (2006) developed a measure to determine the level of systemic, school-wide collaborative and consultative activities that school psychologists engage in, and this is presented in Table 1. School psychologist readers may want to take this survey and reflect on the level of systemic, collaborative and group-based interventions that they engage in within their own work settings. By considering the many items in the School Psychologist Consultative Model of Service Delivery Scale (SP-CMSDS), the broader application of school psychological work is revealed, all of which ultimately benefits the behaviour, learning and mental health and wellbeing of students. You may also want to consider what may be stopping you from working in this way, what would you like to do more of and how you may make that possible.

Future Directions in Assessment and Measurement of Outcomes

Historically, the practice of assessment has been one of the defining features of the profession of school psychology and even more so within school psychology. Traditionally, the goal of an assessment was to identify clinical or educational issues and then use the results from the assessment to make clinical and educational placement decisions. A number of Handbook chapters have outlined specific assessment measures, practices and procedures for readers to consider for a wide range of presenting student problems. In Australia, there are some significant challenges within the school psychology profession in relation to assessment. For example, there is no system of diagnosis for specific learning disability and no unifying consistent criteria for eligibility for support for intellectual disability across jurisdictions or even across schools.

Table 1 School psychologist consultative model of service delivery scale

Please indicate whether or not you do each of the listed activities in your role as a school psychologist by ticking either the yes or no box. Please note that in all given situations, your duty to maintain confidentiality is maintained	Yes	No
Consult with others within the school to discuss and decide on the reasons for an identified problem and plan and/or evaluate interventions		
Participate in educational or welfare decision-making discussions with teachers or school management for students with specific learning needs		
Work to form collaborative relationships with parents of students		
Design and implement research projects that benefit the school psychology profession as a whole		
Work with school staff to affect positive change within the school		
Be involved in school leadership and decision-making processes relating to student welfare issues		
Be involved in school leadership and decision-making processes relating to curriculum, teaching methods, behaviour management and/or organisational structure		
Provide information sessions or programmes for families of students at the school		
Participate in external activities that work towards positive change and development for the school psychology profession		
Act as an advocate for students by trying to influence change at a political or community level		
Provide information sessions or programmes for parents and families of students and/or members of the local community		
Facilitate group information or therapy programmes with students		
Attend professional group meetings, such as regional cluster groups, outside of the school		
Attend student level or other meetings with teachers		
Act as a welfare consultant to teachers or school management		
Act as an educational consultant to teachers or school management		
Act as a welfare consultant to families of students		
Actively integrate services from outside the school to benefit individual students		
Actively integrate services from outside the school to benefit the students or school as a whole		
Work in close collaboration with youth services and mental health services in the local community		
Participate in quality assurance procedures within the school		

For more school psychologist specific scales, see Thielking (2006)

Table 2 gives the reader an example of three jurisdictions, Victoria, Tasmania and NSW, in relation to what criteria is needed for a student to be eligible for receiving educational support (by way of additional funding provided to the school) under the intellectual disability category. What this shows is a lack of consistency on the specific cognitive assessment cut-off scores required for schools to be eligible to access funding for resources (professional support, aides, infrastructure and equipment) to students to make the school more accessible and to reduce barriers to learning. It also reveals that comprehensive cross battery assessment, from a range of information sources (multidisciplinary and multi-informant assessments), is not required.

As mentioned in Jacobs, Flanagan and Alfonso's chapter *Evidence-Based Assessment and Intervention for Specific Learning Disability in School Psychology*, best-practice approaches to assessing intellectual disabilities and specific learning disorders are the application of comprehensive cross battery multi-informant assessment, and this is not occurring. Students are being classified as in need of support or not in need of support from only a limited range of standardised assessments. Having a recognised definition that is applicable across settings would go

Recommendation 7: That the school psychologist profession, professional psychological associations and all departments of education Australia-wide form a working party to collaborate and draw on best-practice evidence to create national guidelines for the assessment and identification of intellectual disabilities and specific learning disorders in children and young people.

a long way to enhancing the reliability of diagnoses and educational classifications. The APS has developed a tip sheet for the public to understand what specific learning disabilities are, who should diagnose them and have listed some strategies for support within the classroom (see: https://www.psychology.org.au/publications/tip_sheets/learning/). However, a universal and national framework that brings together evidence of best practice for diagnosis and treatment of specific learning disabilities would ensure that every child receives the same opportunity and level of support to fulfil their potential to learn.

Improving Outcome Assessment in Schools

There appears to be uniformity within the field of psychology that outcomes assessment should permeate every area of service provision (Barlow & Carl, 2011), so in addition to conducting high-quality psychological and educational assessments and applying high-quality psychological and educational interventions, the school-based practitioner in Australia needs to stress the importance of evaluating the effects of systemic and idiographic prevention and intervention implementation on student outcomes. Better, more efficient and more economical decisions may be made for students if outcomes measurement is an expectation within the schools rather than an exception. Further, whilst large-scale evaluations have their place within the schools to evaluate a systemic academic or social-emotional programme, focus on idiographic change is also an ongoing need within Australian schools. Good data-based decision-making should be ongoing and guide professional practice in schools. If a child is not responding to a specific reading intervention or counselling approach, the school psychologist would examine the data in consultation with the parent, the teacher and other related parties and then make decisions as to what should change and then evaluate the impact of that change. The chapter on outcomes assessment, *Measuring Outcomes in Schools*, provides a number of strategies that the school psychologist may wish to consider in evaluating the impact of interventions.

Furthermore, whilst efforts have been made to have measures that are more reflective of Australian culture and diversity, the majority of the measures used for diagnostic and classification purposes have not been developed within the country of Australia. With Australian schools continuing to become more diverse (Australian Bureau of Statistics, 2014), it is important that school psychologists are trained to engage in culturally competent practice and assessment. As Ortiz and Seymour explained in the chapter in the volume titled: *The Culturally Competent School Psychologist*, not only do school psychologists need to have good knowledge of psychological assessment, but we also need to have awareness of our own potential biases and the impact that culture may have on school performance and behaviour.

In regard to the current selection of psychological assessments for children and adolescents, at best, they have Australian comparative norms, but more often than not, these measures may have limitations in their application for use within the diversity of Australian schools and may impact on the scores required for an accurate assessment of specific learning disability and intellectual disability. This issue has been highlighted in the Indigenous chapter as well, and Indigenous psychologists are taking a lead in this area (see: http://www.indigenouspsychology.com.au). Future efforts may be focused on developing measures for clinical and school-based use *within* Australia.

Table 2 Comparison of eligibility criteria for intellectual disability in Victoria, NSW and Tasmania

State/jurisdiction and terminology	Criteria used to determine whether or not a child has an intellectual disability severe enough to be eligible for their school to receive additional resources to support this child
Victoria: eligibility for inclusion on the Programme for Students with Disabilities (intellectual disability)	Subaverage general intellectual functioning which is demonstrated by a full-scale score of two standard deviations or more below the mean score on a standardised individual test of general intelligence AND Significant deficits in adaptive behaviour established by a composite score of two standard deviations or more below the mean on an approved standardised test of adaptive behaviour AND A history and evidence of an ongoing problem with an expectation of continuation during the school years Source www.education.vic.gov.au/school/teachers/teachingresources/diversity/Pages/handbook.aspx *Victorian Department of Education and Training (2016). Program for Students with Disabilities—operational guidelines for schools 2017*
Tasmania: eligibility for inclusion on the register for severe disabilities (intellectual disability)	Display functional skills and adaptive behaviours consistent with a moderate to severe/profound intellectual disability AND Have a measured intelligence greater than three standard deviations below the mean Accompanied by the note Performance on psychological assessment alone is not sufficient to determine eligibility for the Register of Students with Severe Disabilities. It is recognised that the level of competence and functional abilities of all students depends on their experience, their teaching and learning history and their age. A student with a diagnosis of mild intellectual disability during primary school years is unlikely to be eligible for the Register of Students with Severe Disabilities in later adolescence unless there is a constitutional or organic reason for loss of previously acquired functional skills Source: https://www.education.tas.gov.au/documentcentre/Documents/Register-of-Students-with-Severe-Disabilities.pdf *Tasmanian Department of Education (n.d). Register of Students with Severe Disabilities version 3.0*
NSW: for access to assistance from the learning and support team and specialist resources (intellectual disability)	To meet criteria for mild intellectual disability, students must have a full-scale IQ score of approximately two to three standard deviations below the mean on an approved individual test of intelligence. There must be information on the assessment of adaptive skills and school performance (where applicable) consistent with or below this range of scores To meet criteria for moderate intellectual disability, students must have a full-scale IQ score of approximately three to four standard deviations below the mean on an approved individual test of intelligence. There must be information on the assessment of adaptive skills and school performance (where applicable) consistent with or below this range of scores To meet criteria for severe intellectual disability, students must have a full-scale IQ score of approximately four standard deviations or more below the mean on an approved individual test of intelligence. There must be information on the assessment of adaptive skills and school performance (where applicable) consistent with or below this range of scores Source: http://www.schools.nsw.edu.au/studentsupport/programs/disability.php *NSW Department of Education (2003). Disability Criteria.*

Recommendation 8: That the school psychologist profession, professional psychological associations and all departments of education Australiawide develop national guidelines on evidence-school-based measures to evaluate improvements in student behaviour, learning and mental health and wellbeing.

School Psychologists' Role in Promoting Intercultural Harmony Within Schools

Recently in Australia and around the world, there has been increasing attention given to creating better strategies for understanding and promoting multicultural harmony and social cohesion in schools. It is a complex issue impacted by a number of personal, school, community and structural factors, and multicultural education requires a multidimensional intervention approach (Mansouri & Kamp, 2007). However, despite the complexity of strategies required to achieve intercultural harmony, an important ingredient in any society striving to achieve peace is high-quality and inclusive education, that is, "while education is an ongoing process of improving knowledge and skills, it is also—perhaps primarily—an exceptional means of bringing about personal development and building relationships among individuals, groups and nations" (Delors, 1996). An important concept that school psychologists can bring to this issue is the establishment of *intercultural competence*, which is a dynamic concept and refers to "having adequate knowledge about particular cultures, as well as general knowledge about the sorts of issues arising when members of different cultures interact, holding receptive attitudes that encourage establishing and maintaining contact with diverse others, as well as having the skills required to draw upon both knowledge and attitudes when interacting with others from different cultures" (UNESCO, 2013, p. 16).

School psychologists have the training to bring together and/or support diverse or marginalised young people, increase student participation in education, transform a young person's sense of isolation from mainstream society and eliminate destructive and polarised attitudes and beliefs. Through the establishment of the therapeutic relationship and by the confidential nature of service delivery, this allows young people to talk openly about their cultural attitudes, values and beliefs, providing school psychologists with an opportunity to carefully and respectfully challenge student attitudes and ideas that undermine community harmony and create a higher acceptance of other cultures in students. In turn this may establish a more flexible mindset, increase intercultural dialogue and create an increased recognition of the universality of human existence, thus facilitating, in real-world terms, "an effective culture of peace" (UNESCO, 2013, p. 4). School psychologists can play a vital role in ensuring that schools meet UNESCO's four pillars of education in schools, as identified in the report to UNESCO, *Learning: The Treasure Within* (Delors, 1996): learning to know, learning to do, learning to live together and learning to be—still highly relevant today.

By efforts to work towards culturally competent training in formal and postgraduate education, school psychologists may be the best professional in the school setting to consider and address any challenges in educational service delivery that may be impacted upon by culture. This involves everything from considering which measures to use that are considered to be more culturally fair as well as how to adapt psychological and educational interventions in consideration of cultural variables and to promote social cohesion. Ortiz and Seymour discuss a number of frameworks to guide culturally competent practice amongst school psychologists in *The Culturally Competent School Psychologist*, and these can be adapted by training programmes and professional organisations.

Recommendation 9: That school psychologists play an active and key role in Australian schools' application of the 'four pillars of education' in schools, as identified in the Learning: The Treasure Within report (Delors, 1996), particularly in relation to the third pillar, 'learning to live together'.

Making a Big Impact: Prevention as a Science and Systems-Level Change

As the number of school psychologists continues to be significantly outweighed by the number of students who need services, efforts need to be made to be able to have as large of an impact on as many individuals as possible. Instead of a 'wait to fail' approach where we only intervene when a child struggles, it would benefit more students if more systemic approaches to identify students at risk early-on and evidence-based prevention programming are offered. In this Handbook, Eklund, Griffiths and Newton discuss the role of school psychologists in identifying and applying systems change in classrooms and schools in *Systems Change in Schools: Class and School-Wide Approaches to Addressing Behavioural and Academic Needs*. This is an efficient and effective way to increase the number of students that the school psychologist may have an impact upon and is an area that training and practice in Australian schools should focus upon. A systems-change approach may warrant administrative support, and the school psychologist needs to serve as a leader and an advocate for implementation. The chapter by Stops and Kelly in this Handbook, *Promotion of Leadership and Advocacy in School Psychology*, reinforces these principles and discusses strategies on how best to do this.

Integration of Technology in Assessment and Intervention

As Pfohl and Jellins outline in their chapter titled *School Psychologists in the Digital Age*, the impact of technology on school psychological practice is ever expanding. Whilst much of this increase has focused on assessment-based practices, we argue that there will be an expanded role of technology for training and service delivery. Computerised and distance training of school psychologists will enhance the dissemination of current evidence-based practices. No longer will the argument be made that training is limited based on geographic locale. This may be very important within Australia for provision of training in remote regions. School psychology training for assessment and intervention activities may now be more available to populations that have traditionally been underserved or perhaps did not have access to services.

Technology may also enhance communication between the school-based professional and students, teachers and parents, providing additional support and resources beyond the school psychologists' office hours. An important consideration with regard to use of technology to provide interventions and psychoeducation is the ethical and legal issues that may result from delivery of psychological services through various technological modalities (e.g. telephone, the Internet, telehealth). One consideration is to make sure the modality of communication is secured particularly around the discussion of confidential student and family issues.

Critical Skills Australian School Psychologists Will Need in the Future

We believe that the main professional activities of school psychologists will continue to be assessment, consultation and intervention, but *when* and *how* these are delivered are likely to change.

Establishment of core competencies in practice is a matter for higher education, professional organisations, governmental agencies/registration boards and also for the individual themselves. Continuing to seek professional development and supervision to further enhance one's competencies in practice is essential. The field has evolved, and most likely the changes we see in terms of technology and service delivery/practice will change significantly over the next decade. The concept of the 'half-life' of knowledge is the length of time it takes a practising professional to become roughly half as knowledgeable or competent to practice, as a result of new knowledge within the discipline (Dubin, 1972). The half-life of school psychological knowledge is estimated to be 8.2 years (Neimeyer, Taylor, & Rozensky, 2012). We predict that this amount will actually continue to decrease and stress that is why it is important for school psychologists to continue to create strong collaborative networks and seek professional development throughout their working careers.

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