Kurt D. Michael
John Paul Jameson
Editors

Handbook of Rural School Mental Health

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To Amy, my life partner and best friend—your unwavering support of my personal and professional pursuits is something I will always hold dear (KM).

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Foreword

Escalating the Advancement of Rural School Mental Health

As documented in a growing number of books (see Adelman & Taylor, 2010; Clauss-Ehlers, Serpell, & Weist, 2013; Dikel, 2014; Doll & Cummings, 2008; Evans, Weist, & Serpell, 2007; Kern, George, & Weist, 2016; Kutcher, Wei, & Weist, 2015; Robinson, 2004; Weist, Evans & Lever, 2003; Weist, Lever, Bradshaw, & Owens, 2014), proliferating research and journal articles (see newer journals *School Mental Health* published by Springer, and *Advances in School Mental Health Promotion* published by Routledge), and increasing federal support (President's New Freedom Commission, 2003; United States (U.S.) Public Health Service, 2000; U.S. White House, 2013), the school mental health (SMH) field is gaining momentum in the U.S. and around the world (Rowling & Weist, 2004; Weare, 2000; Weist, Short, McDaniel, & Bode, 2016). The field, as represented in this literature and in this critically important book edited by leaders Kurt Michael and John Paul Jameson, reflects an interdisciplinary and cross-system approach involving a range of relevant community agencies and stakeholders (e.g., mental health, juvenile justice, child welfare, family/youth advocacy, disabilities, primary health care) working collaboratively with schools, school-employed mental health professionals, educators, and other school staff to move toward greater depth and quality in multitiered systems of support involving promotion/prevention, early intervention, and treatment (also see the highly related literature on Positive Behavior Support—e.g., Sailor, Dunlap, Sugai, & Horner, 2009; and evolving work to link it with SMH—e.g., Barrett, Eber, & Weist, 2013). Indeed, it can be argued that there is no agenda within a community that is more important, as SMH is focused on assisting children and youth; promoting their positive social, emotional, and behavioral functioning; reducing and removing barriers to their learning; and increasing the likelihood of their successful matriculation, graduation, and positive contributions to society.

The SMH field is based on several fundamental recognitions. First, in general, children, adolescents, and families have difficulty connecting to and subsequently do not regularly attend specialty mental health appointments (see Atkins et al. 1998; Catron, Harris, & Weiss, 1998). Second, although schools represent a universal setting, significant for almost all youth, they are under-resourced to meet the mental health needs of students (see Foster et al., 2005). Third, there are

many advantages to augmenting existing school staff efforts to improve student mental health by partnering with community mental health and other agencies to move toward an "expanded" school mental health approach (Weist, 1997). As the field is gaining momentum in interconnected research, practice, and policy, a range of benefits for students, schools, and community are being documented (see Stallard, Simpson, Anderson, Hibbert, & Osborn, 2007; Suldo, Gormley, DuPaul, & Anderson-Butcher, 2014; Wilson & Lipsey, 2007), which are in turn fueling further advances and fostering the building of capacity.

Notably, there is evidence that SMH is particularly important for rural children, youth, and families, given the higher rates of death by suicide in remote regions (Fontanella et al., 2015), prevalent substance abuse including opioid addiction and overdose (Lambert, Gale, & Hartley, 2008), and increased barriers to receiving effective care (Hefflinger et al., 2015). Thus, there is a critical need for innovative and empirically supported mental health services for rural youth and families (see Jameson, Chambless, & Blank, 2009) with emphasis on school-based approaches to increase the likelihood that they will actually connect to these services (see Michael et al., 2013). This is the gap that this Handbook fulfills. Editors Kurt Michael and John Paul Jameson have assembled a comprehensive collection of superbly written chapters that covers the full range of issues relevant to further building the SMH agenda for rural youth and families. As above, chapters focus on advancements in research, practice, and policy, as well as interconnecting progress across these realms in key theme areas including Development and Implementation, Clinical and Cultural Conditions, Addressing Challenges, and Program Evaluation and Sustainability. Per the interdisciplinary, cross-agency, and diverse nature of the SMH field, contributing authors reflect this diversity, with senior researchers and policy leaders, younger faculty and program managers, multiple disciplines and stakeholder groups represented. Chapters provide relevant background and important hands-on guidance for making progress. It is a privilege to participate in this groundbreaking work.

Columbia, SC, USA Mark D. Weist

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Mark D. Weist received a Ph.D. in clinical psychology from Virginia Tech in 1991 after completing his internship at Duke University, and is a Professor in Clinical-Community and School Psychology in the Department of Psychology at the University of South Carolina. He was on the faculty of the University of Maryland for 19 years where he helped to found and direct the Center for School Mental Health (http://csmh.umaryland.edu), providing leadership to the advancement of school mental health (SMH) policies and programs in the United States. He has edited ten books and has published and presented widely in SMH and in the areas of trauma, violence and youth, evidence-based practice, cognitive behavioral therapy, Positive Behavioral Interventions & Supports (PBIS), and on an Interconnected Systems Framework (ISF) for SMH and PBIS. He is currently co-leading a regional conference on school behavioral health (reflecting integrated SMH and PBIS, see http://www.schoolbehavioralhealth.org) and leading a randomized controlled trial on the ISF.

Preface

The idea for this Handbook emerged from a series of conversations that took place in the fall of 2012. JP and I had been deeply involved in the development of school mental health (SMH) initiatives in rural Appalachia for several years. In search of guidance tailored for our remote settings, we consulted the empirical literature on schools, children's mental health, community psychology, implementation science, outcome assessment, school administration, and policy to practice outlets. We also searched for more comprehensive resources in school mental health, child and adolescent behavioral health care, school social work, counseling, nursing, and school psychology. There were certainly some excellent resources already available, including the s econd edition of the *Handbook of School Mental Health* (Springer), yet the issue of rural SMH was not addressed specifically. The closest approximation found were two single chapters in edited books or handbooks, including a chapter in *Rural Mental Health: Issues, Policies, and Best Practices* (Waguespack, Broussard, & Guilfou, 2012) and another single chapter in the *Handbook of Culturally Responsive School Mental Health: Advancing Research, Training, Practice, and Policy* (Owens, Watabe, & Michael, 2013). Though these works are outstanding, it became clear to us that the body of literature on rural issues in SMH was otherwise scant, disjointed, unorganized, and less than user-friendly. Around the same time and coincidentally, Springer Associate Editor, Garth Haller, contacted me to inquire if I had any book ideas. JP and I agreed to meet Garth and his colleague, Senior Editor Judy Jones, in Seattle at the Annual National Association of School Psychologists (NASP) Convention to discuss the idea further. As the conversation deepened, we felt optimistic that there was a sufficient need to assemble an inaugural *Handbook of Rural School Mental Health*. Although it certainly took longer than expected, we are thrilled with the final product.

When we started to organize the content of this book, we approached it as something of a thought experiment. We asked ourselves, "If we could go back in time to when we started this work, what would we want to know to avoid some of the mistakes we made and handle some of the problems we encountered early on?" We quickly realized that this book needed to move well beyond the nuts and bolts of clinical practice in school settings and address the additional issues of development, implementation, process, policy, sustainability, and evaluation. A successful rural SMH program takes a proverbial village, and we decided that we needed a book that spoke to the need of having all parties come together with respect to their unique perspec-

tives and contributions to create effective programs in the service of students. Therefore, the *Handbook of Rural School Mental Health* addresses the concerns of a diverse array of stakeholders involved in all aspects of the functioning of SMH programs in remote and rural settings. And because we hoped that the book would be valuable to researchers, practitioners, policymakers, educators, and advocates alike, as editors we strove to avoid highly technical and abstract models and instead promote the use of illustrative examples to bring important issues and concepts to life for the reader. We also attempted to encourage chapter authors to create bridges between concepts familiar to mental health service providers and those used in education. While we cannot claim that this volume is a universal blueprint for creating, sustaining, and improving SMH programs in rural areas— indeed, we would argue that such an endeavor would be impossible— we do hope that the book provides a thorough treatment of the major issues that rural SMH programs are likely to face.

In addition to this preface, Mark Weist thoughtfully sets the tone for the *Handbook* by providing his expert perspective on the field of school mental health, along with an attempt to persuade the reader of the rationale for a specific resource for stakeholders in rural schools. The contents of the Handbook are separated into four parts: (1) *Development of Rural School Mental Health Initiatives: Rationale, Policies, Ethics, and Competencies*; (2) *Clinical and Cultural Conditions in Rural School Settings*; (3) *Addressing Challenges in Delivering Rural School Mental Health Services*; and (4) *Implementing, Evaluating, and Sustaining Rural School Mental Health Programs*.

In *Part I*, the broad perspectives of national and international school mental health experts, educators, and community mental health leaders are included. The topics range from the initial development and implementation of school mental health programs, the reasons why SMH should be considered, and how implementation can proceed in an empirically informed manner. Sharon A. Hoover and Ashley Mayworm begin the part with *The Benefits of School Mental Health*. They discuss the unique position of SMH programs to facilitate access to care in vulnerable rural settings, address stigma as a barrier to care, provide opportunities for early identification and intervention for mental and behavioral health concerns, facilitate a full continuum of services within the school, and provide care in a young person's natural environment. Hoover and Mayworm make a convincing case for implementation of school mental health programs by highlighting mental and behavioral health outcomes from school mental health interventions. Next, E. Rebekah Siceloff, Christian Barnes-Young, Cameron Massey, Mitch Yell, and Mark Weist describe the process of developing effective policy supports for rural school mental health programs in the chapter *Building Policy Support for School Mental Health in Rural Settings*. Siceloff, Barnes-Young, Massey, Yell, and Weist chronicle important policy considerations and challenges, namely sustainability and funding, to implementing school mental health programs unique to rural settings. They end the chapter with a case study detailing school mental health in South Carolina and the innovative strategies employed to address the challenge of sustainability.

The next two chapters consider practitioner-related aspects of developing rural school mental health programs. Michael Sulkowski considers ethical issues commonly encountered by school mental health practitioners relevant to tight-knit rural communities where mental health providers are scarce and provides a guide for laws that affect school mental health in the chapter *Legal and Ethical Issues Related to Rural School Mental Health*. Sulkowski's guide to navigating legal and ethical issues in rural SMH practice provides valuable information to inform program policies and procedures. In *General and Specific Competencies for School Mental Health in Rural Settings*, Dawn Anderson-Butcher, Jill Hoffman, David Rochman, and Michael Fuller describe the competencies and skills necessary for practitioners in rural school mental health programs. This chapter is especially helpful in developing relevant training competencies for rural school mental health practitioners, considering how being a well-trained mental health service provider translates into the rural school context, and understanding what areas of need are unique to rural school mental health settings.

The final two chapters address the development of school mental health initiatives through consideration of issues related to teachers and school mental health in rural communities. Susan Rodger, Kathy Hibbert, and Michelle Gilpin address the critically important relationship between teachers and school mental health programs in the chapter *Preservice Teacher Education for School Mental Health in a Rural Community*. Rodger, Hibbert, and Gilpin describe important aspects of teacher preservice education that may contribute to rural school mental health and is a helpful resource for a rural school mental health practitioner's understanding of school and teacher functioning. Further addressing school mental health's relevance to rural teachers, Timothy Carey concludes this part with *Why Would Teachers Care? The Value of Rural School Mental Health from an Educator's Standpoint*. Carey attends to educators' values, pointing to the benefits of an increased focus on mental health in rural schools that may improve school functioning for students and teachers.

Part II focuses on supporting SMH practitioners by summarizing the current state of research on assessment and treatment practices for problems commonly seen in school settings and providing practical guidelines for utilizing evidence-based practices in their own programs. This part begins with a piece written by Alex Kirk, Rafaella Sale, and Eric Youngstrom titled, *Rural America and Evidence-Based Assessment: The Potential for a Happy Marriage*. Kirk, Sale, and Youngstrom make a case for contextualizing broadly evidence-based assessment in rural schools as a strategy for reducing costs and improving the efficiency of SMH programs. It is an excellent read for those interested in merging empirically based assessment practices into real world settings. Following this chapter, authors Alex Holdaway, Verenea Serrano, and Julie Sarno Owens outline how best to identify and treat ADHD in rural settings in their chapter titled *Effective Assessment and Intervention for Children with ADHD in Rural Elementary School Settings*. We felt fortunate to have received this contribution, given that the authors (and notably Dr. Owens) have established exceptional reputations for developing and testing ADHD interventions in the lab and successfully adapting them for use in community settings.

The next three chapters discuss considerations for preventing suicide and treating anxiety and depression in rural settings. First, Marisa Schorr, Whitney Van Sant, and JP Jameson make the case for schools as a logical starting point for suicide prevention interventions in rural communities in the chapter *Preventing Suicide Among Students in Rural Schools*. Schorr, Van Sant, and Jameson discuss salient suicide risk factors in rural communities and provide an overview of school-based suicide prevention programs, highlighting the characteristics of such programs that are adaptable for rural schools. This section is an excellent starting point for implementing rural school-based suicide prevention and postvention practices and considering strategies for overcoming barriers to implementation. In the chapter *The Identification and Treatment of Anxiety Among Children in Rural Settings*, Sophie Schneider, Suzanne Davies, and Heidi Lyneham provide convincing evidence in support of telehealth as a useful anxiety treatment strategy that can increase the accessibility of mental health treatment in rural communities. Schneider, Davies, and Lyneham provide a thoughtful analysis of anxiety assessment and treatment strategies along with relevant adaptations and challenges for rural contexts. Carissa Orlando, Abby Albright Bode, and Kurt Michael outline depression treatment challenges in rural settings and set up school mental health programs as an innovative approach to addressing these challenges in the chapter *Depression and Rural School Mental Health: Best Practices*. By providing helpful examples of school mental health programs treating depression, Orlando, Albright Bode, and Michael provide a framework for evidence-based assessment and treatment of depression and useful adaptations for treating depression within rural schools.

The following three chapters discuss treatment considerations for other clinical concerns in rural schools. Kristyn Zajac, Arthur Andrews, and Ashli Sheidow provide information about the manifestation of adolescent substance use and conduct problems in rural settings and how limited access to treatment can exacerbate substance and conduct-related concerns in the chapter *Conduct Disorders and Substance Abuse in Rural School Settings*. Zajac, Andrews, and Sheidow provide a compelling case for implementing evidence-based treatments for substance use and conduct problems within the school setting as a potential solution for limited access to mental health treatment while providing thoughtful considerations for future program development. Then, Rafaella Sale, Alex Kirk, and Eric Youngstrom discuss the school as the optimal setting for making gains in early detection and intervention for pediatric bipolar disorder in rural communities in the chapter *What Lies Beneath: Pediatric Bipolar Disorder in the Context of the Rural School*. Sale, Kirk, and Youngstrom advocate for a collaborative approach between educators and mental health professionals in early identification of pediatric bipolar disorder as it presents in the classroom to aid early intervention, which further emphasizes the importance of school mental health programs for rural communities. Last, in the chapter *Supporting Students with Autism Spectrum Disorder in Rural Schools*, Cynthia Anderson, Ryan Martin, and Rocky Haynes provide a framework for supporting students with autism, emphasizing avenues for appropriate assessment, intervention, and monitoring of intervention within schools with scarce resources. Anderson, Martin, and Haynes pay

particular attention to evidence-based interventions that are feasible within the school setting, making this chapter especially useful for educators and mental health professionals interested in increasing school supports for students with autism.

Part II concludes with Robin Kowalski, Gary W. Giumetti, and Susan P. Limber discussing the gap in the literature examining bullying and cyberbullying in rural settings to the detriment of our understanding of these experiences for rural adolescents in the chapter *Bullying and Cyberbullying Among Rural Youth*. Pointing to the differences between rural and urban settings, Kowalski, Giumetti, and Limber discuss the implications for prevention and intervention based on what is known about bullying and cyberbullying among both rural and urban adolescents, and provide guidance for future research endeavors in this understudied area.

Part III addresses common barriers to SMH service delivery in rural areas (e.g., stigma and suspicion of mental health services, mental health service provider shortages, building integrated care systems with limited resources) by presenting innovative practice models that have demonstrated and documented success in rural schools. Beginning this section, Scotty Hargrove, Lisa Curtin, and Brittany Kirschner discuss barriers related to the stereotypes of rural settings themselves that have affected policies related to mental health care and advocate for policy that reflects a greater understanding of diversity in rural settings in the chapter *Ruralism and Regionalism: Myths and Misgivings Regarding the Homogeneity of Rural Populations*. Hargrove, Curtin, and Kirschner describe the rationale for policy support for school mental health programs as a viable method for context-specific provision of mental health care common to all rural communities.

The next two chapters examine family-related variables as both assets to overcoming barriers related to rural settings and as barriers themselves. Shannon Holmes, Amanda Witte, and Susan Sheridan consider the unique strengths of rural parents and teachers encompassed in Conjoint Behavioral Consultation as one method for overcoming barriers to mental health treatment in rural communities in the chapter *Conjoint Behavioral Consultation in Rural Schools*. Holmes, Witte, and Sheridan further strengthen their argument for Conjoint Behavioral Consultation as a viable approach for providing acceptable school mental health treatment in rural settings by detailing the results of a randomized controlled trial examining the efficacy of this approach in rural communities. Then, Lisa Curtin, Cameron Massey, and Sue Keefe describe patterns of intergenerational mental health variables in rural communities and how such variables are integral to the understanding of rural students' mental health concerns in their chapter *Intergenerational Patterns of Mental Illness in Rural Settings and Their Relevance for School Mental Health*. By examining the importance of family-related mental health variables to the provision of school mental health services and describing the operation of a school mental health program oriented to these contextual issues, Curtin, Massey, and Keefe provide compelling suggestions for working with both students and their families in rural school mental health programs.

Jeannie Golden, Dorothy Dator, Katherine Gitto, and Christelle Garza conclude this part with the chapter *Contributions of Applied Behavior Analysis to School-Based Mental Health Services*. Golden, Dator, Gitto, and Garza describe the versatile nature and wide applicability of Applied Behavior Analysis (ABA) as a method for increasing widespread access to skill provision at home and in schools for parents, students, and educators in rural schools. Golden, Dator, Gitto, and Garza critically examine the ability of ABA to address many barriers to school mental health care and where ABA may fall short, the authors provide further evidence for the importance of collaboration between parents, educators, and clinicians in overcoming barriers to school-based mental health services.

Part IV focuses on methods for evaluating SMH programs and sustaining successful programs over time. The intended audience for the Handbook is researchers, practitioners, and administrators who would benefit from a comprehensive source of information to further benefit service recipients, trainees, and policy makers. Moreover, the Handbook is essential reading for those who endeavor to develop a rural SMH program. Jackie Belhumeur, Erin Butts, Kurt Michael, Steve Zieglowsky, Dale DeCoteau, Dale Four Bear, Courage Crawford, Roxanne Gourneau, Ernie Bighorn, Kenneth Ryan, and Linda Farmer begin this part with the chapter *Adapting Crisis Intervention Protocols: Rural and Tribal Voices from Montana.* Belhumeur, Butts, Michael, Zieglowsky, DeCoteau, Four Bear, Crawford, Gourneau, Bighorn, Ryan, and Farmer describe efforts to involve rural community agencies and tribal organizations to develop effective crisis intervention protocols in Montana public schools. Moreover, the authors emphasize the importance of youth voice and local champions as central features of effective health promotion and suicide prevention programs. This chapter makes a thoughtful case for facilitating active community engagement in school-based mental health services in rural communities.

The next three chapters examine issues of school mental health program evaluation, implementation, and continued improvement in rural settings. First, Brandon Schultz, Anne Dawson, Clifton Mixon, Craig Spiel, and Steve Evans provide an expert discussion of the challenges associated with rural school mental health program evaluation in the chapter *Evaluating Rural School Mental Health Programs*. With a focus on specific evaluation concerns, Schultz, Dawson, Mixon, Spiel, and Evans detail the benefits of a fundamental change to program evaluation by school mental health professionals. Next, Barbara Sims and Brenda Melcher provide a valuable framework for implementation in the chapter *Active Implementation Frameworks: Their Importance to Implementing and Sustaining Effective Mental Health Programs in Rural Schools*. This handbook benefits from the helpful guide Sims and Melcher provide that is relevant to both educators and clinicians interested in implementing practical and effective school mental health programs in rural settings. Melissa Maras, Paul Flaspohler, Marissa Smith-Millman, and Lindsay Oram conclude this part by discussing the need for innovative frameworks for planning, implementing, and evaluating improvement in effective and efficient rural school mental health programs in the chapter *Planning, Implementing, and Improving Rural School Mental*

Health Programs. Maras, Flaspohler, Smith-Millman, and Oram anchor the entire Handbook by describing the process of improving school mental health programs as essential to program sustainability and provide an excellent and innovative suggestion for building the capacity for effective, practical, and sustainable rural school mental health programs.

We were truly honored and blessed to receive so many exemplary contributions from the entire group of 73 esteemed authors. Editing this volume has certainly expanded the breadth and depth of our knowledge, and we have taken many lessons from these chapters that have helped us improve our own programs. We hope that the *Handbook of Rural School Mental Health* is as informative to your work, regardless of your role in providing or supporting access to mental health in the schools.

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Part I

Development of Rural School Mental Health Initiatives: Rationale, Policies, Ethics, and Competencies

The Benefits of School Mental Health

1

Sharon A. Hoover and Ashley M. Mayworm

In recent decades, student mental health services and supports have increasingly been integrated into education systems across the nation. In many districts, schools and communities have partnered in their efforts to both promote student wellness and social emotional competence and identify and address mental health problems as they arise. These school-community partnerships reflect a growing movement toward "comprehensive school mental health systems" (CSMHSs), or partnerships between school systems and community programs that provide a full array of evidence-based, tiered services (universal mental health promotion, selective prevention, and indicated early intervention). The integration of mental health into education offers the potential to enhance the wellness and reduce the mental illness of children across the United States, particularly in the most vulnerable communities with limited access to quality mental health care, including those in rural settings.

It has been established that there is a high incidence of children and adolescents with unmet mental health needs. According to data from the National Comorbidity Study—Adolescent Supplement (NCS-A), 46.3% of 13–18-year-olds currently or at some point in their life will have a mental health disorder (Merikangas et al., 2010). In younger children (ages 8–15 years), the National Health and Nutrition Examination Survey (NHANES) suggests that approximately 13% of children had a diagnosable mental disorder in the previous year (National Institutes of Health, n.d.). However, of those adolescents with a mental health disorder, approximately only 36% receive mental health treatment (Merikangas et al., 2011), and only 50% of 8–15-year-olds with a diagnosable mental health disorder received treatment in the past year (Grief Green et al., 2013). Other studies estimate that as many as 79% of 6–17-year-olds have unmet mental health needs (The National Survey of American Families; Kataoka, Zhang, & Wells, 2002). Furthermore, school principals indicate that mental health is one of the greatest unmet needs in their students (Iachini, Pitner, Morgan, & Rhodes, 2015).

Rural areas face unique mental health challenges, including more significant impairment among youth and difficulties providing adequate care to those in need. Even after controlling for socioeconomic factors, youth suicide mortality rates are significantly higher in rural areas as compared to urban areas, with this gap becoming larger in recent decades (Singh, Azuine, Siahpush, & Kogan, 2013). Further, access to care is difficult, with 1.9 million children in the United States experiencing mental health

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problems but living in rural areas with little to no mental health care resources. In rural areas, four out of five children who could benefit from mental health services live in a county without a community mental health center (Moore et al., 2005). Although children and families report receiving the majority of mental health care in school settings, rural schools indicate limited capacity to address the mental health needs of their students. In a survey of teachers, administrators, school psychologists, counselors, and social workers working in rural schools within the United States, participants reported that while learning, attention, conduct, and autism-related needs tend to be met in their schools, issues related to family, anxiety, depression, and trauma have higher rates of unmet need. Additionally, services for prevention, promotion, and mentorship were reported as lacking (Lee, Lohmeier, Niileksela, & Oeth, 2009).

In children and adolescents who do access care, rates of attrition are high. Approximately 40–60% of children, adolescents, and families who begin mental health treatment drop out prematurely (Kazdin, 1996; Kazdin, Holland, & Crowley, 1997). Moreover, more than half of families do not return by the fourth session (McKay, Lynn, & Bannon, 2005). Several factors predict treatment dropout, including family stressors, perception of lack of relevancy of treatment to child's needs, and poor therapist–client relationship. Even when these factors are minimized, families must navigate a multitude of obstacles in order to receive mental health services in traditional outpatient and specialty clinic settings including structural barriers (lack of availability of providers, uninsured, transportation difficulties, inconvenient appointment times, long wait lists) and concerns about the mental health system (limited trust of providers, privacy concerns, stigma; Owens et al., 2002; Weist, Lever, Bradshaw, & Sarno Owens, 2014). Many of these barriers are particularly pronounced in rural communities, where structural barriers are more prominent due to scarcity and geographic distance of specialty providers, as well as greater perceived threat to privacy and anonymity. The limitations of our traditional mental health system to adequately reach and serve children and families have led many communities to consider the potential of schools as a venue for providing a full continuum of student mental health supports.

Benefits of SMH

Integration of mental health into the education sector offers tremendous promise for addressing gaps in mental health care, as well as a mechanism for boosting student academic success. In addition to facilitating access to care, providing mental health services and supports directly in the school building offers a host of benefits including greater follow-through with initiated care, ability to see students in their natural environment (school) and generalize skills to that setting, ability to engage key socialization agents (teachers, parents), opportunities for screening and early identification of mental health concerns, and opportunities to offer mental health promotion activities as well as more intensive mental health intervention as needed. Each of these benefits is discussed below, with particular attention to their relevance in rural settings.

Access to Care

Schools offer a natural access point to students who need, but may not otherwise receive, mental health services. Children and adolescents spend a great deal of their time in the school setting (approximately 15,000 h), and in addition to parents, teachers and other school staff are often the first people to identify a potential mental health problem in children (Loades & Mastroyannopoulou, 2010). Indeed, current estimates suggest that over 70% of youths who receive mental health services do so in school and education settings (Rones & Hoagwood, 2000; Teich, Robinson, & Weist, 2008). As Weist (1997) explains, "By placing services in them [schools], we are reaching youth 'where they are,' eliminating many of the barriers that

exist for traditional child mental health services (e.g., as provided in community mental health centers and private offices)" (pp. 319–320). As compared to youth who receive services in community mental health settings, youth who receive services in schools are less likely to have received prior mental health counseling (Weist, Myers, Hastings, Ghuman, & Han, 1999). This is particularly true for students with internalizing issues such as depression and anxiety, and suggests that youth may be identified earlier in schools and/or that schools are reaching youth who may not otherwise receive care. For instance, in a rural high school with suicide attempts double the national average, the vast majority of the 42 students assessed for suicidal or homicidal threat (79%) had never received mental health services prior to the crisis. This on-site school mental health effort resulted in 23 of these students receiving formal mental health intervention support (14 in school, 9 in the community) and 19 being matched to an adult assigned to "check in" to monitor wellness and safety (Michael et al., 2015).

The presence of comprehensive school wellness centers is associated with much greater use of mental health care among students in both urban and rural settings, pointing to the value of placing mental health services on-site in schools (Gue, Wade, & Keller, 2008). Beyond initial access, students are also more likely to follow through with mental health services when they are offered in schools as compared to other community mental health settings, where high no-show rates are the norm (Catron et al., 1998). Although schools offer unmatched access to mental health care for youth, some findings suggest that students are more likely to access services when their schools are located in urban settings than in rural settings, suggesting that some of the other factors impeding care in rural settings (stigma, privacy concerns) may still be prominent in schools (Grief Green et al., 2013). That being said, given the relative lack of community mental health clinics and specialty psychiatric services in rural settings, schools are well positioned to narrow the access gap among rural youth with mental health problems.

Comfort/Stigma

Stigma around mental illness is one of the barriers to children and families accessing and remaining in mental health treatment. Stigma can impact the help-seeking behaviors and openness to mental health treatment of both the parent and the child directly. In a review of the literature on stigma and child mental health disorders, Mukolo, Heflinger, and Wallston (2010) concluded that stigma of children with mental illness may be as "unforgiving" as the public stigma that exists for adults. The general public tends to view mental health problems in children as related to propensity for violence and to support legally mandating that parents of children with mental illness place their children in treatment (Pescosolido, Fettes, Martin, Monahan, & McLeod, 2007). Furthermore, when adults were shown vignettes of children with emotions and behaviors that the adults viewed as dangerous or an indication of mental illness, they were more likely to respond punitively and negatively to the hypothetical situation and child (Pescosolido et al., 2007). Pescosolido et al. (2007) suggest that these attitudes reflect general societal stigma around child mental health problems and judgment of parents of children with mental health disorders. Similarly, children view individuals with mental illness less favorably than other groups (Wahl, 2002). Related to these perceptions of mental illness, adults and children alike may experience fear or embarrassment about help seeking for mental health problems.

Schools may be uniquely suited to addressing stigma as a barrier to treatment, in that they offer a more familiar and less threatening environment in which to seek care. Several studies have documented the positive therapeutic alliance between school-based providers and students and families (Lazicki, Vernberg, Roberts, & Benson, 2008; Nabors, Weist, Reynolds, Tashman, & Jackson, 1999). Students and caregivers also consistently report feelings of comfort and high satisfaction in school mental health services (Nabors and Reynods, 2000). Further, schools offer natural opportunities to provide training and education to teachers and parents on mental health literacy

and help seeking, in order to lower stigma and normalize mental illness and treatment. Despite the potential for reducing stigma and increasing comfort, some students might not feel comfortable seeking mental health care in the school setting. A recent qualitative study by Huggins et al. (2016) found that adolescents in high school often have a negative opinion of seeking mental health counseling at school, due to a fear of being embarrassed or negatively stereotyped. This may be particularly concerning for adolescents who are driven by peer approval and the need to "fit in," thereby suggesting the need for consideration of developmentally tailored strategies to reduce stigma and promote comfort among students seeking school mental health services.

Stigma may be particularly impactful on mental health help seeking in rural settings in part due to the perception of a lack of anonymity in small communities. Although research on stigma related to child mental illness in rural areas is limited, adults in rural areas view mental illness with more negativity than their urban counterparts, resulting in less help-seeking behavior (Rost, Smith, & Taylor, 1993). Polaha, Williams, Heflinger, and Studts (2015) found that in a sample of 347 caregivers of children with psychosocial concerns living in rural areas, higher perceptions of stigma around mental health services for children were related to lower rates of willingness to seek out services. Schools may offer a safe, familiar environment that parents and students already know and attend, possibly buffering the impact of stigma on mental health treatment use.

Early Identification and Intervention

Integrating mental health into schools offers the opportunity to identify and address mental and behavioral health problems early on. This is critical because mental health problems in children are often underidentified (Flett & Hewitt, 2013). In particular, young people with internalizing disorders (e.g., depression, anxiety) are less likely to be identified as having a mental health problem and receive treatment than those with externalizing disorders (e.g., conduct problems, hyperactivity); approximately 18–38% of youth meet the criteria for an anxiety or a mood disorder, but only 17–37% of those youth receive treatment, whereas approximately 15% of youth meet the criteria for a behavior disorder with 45–60% of those youths receiving treatment (Merikangas et al., 2010; Merikangas et al., 2011). A first step in the process of providing appropriate prevention and early intervention services to children is understanding and identifying the mental health needs of the population through systematic, evidence-based measurement. Schools are uniquely suited to early identification, as they have access to a large population of young people. Universal screening in schools, or the voluntary assessment of mental health needs and strengths across the entire student population (Dowdy et al., 2015), allows schools and community partners to identify areas of mental health need in their student population, identify students who may benefit from various prevention and intervention efforts, and monitor changes in these mental health needs over time. These data can be aggregated or disaggregated as needed, to inform resource utilization and programming prioritization (Dowdy, Ritchey, & Kamphaus, 2010); data are also useful measures for evaluating program effectiveness. As Dowdy and her colleagues (Dowdy et al., 2010) note: "By systematically engaging in periodic mental health screening of all children in schools (Hill et al., 2004), school-based mental health professionals can shift their focus away from solely providing indicated services to providing more population-based, ultimately preventive, services" (p. 169). Recent federal and state efforts to support teacher training in mental health have recognized the value of integrating teachers into the process of early identification of mental health problems. Teachers have the advantage of viewing a large sample of same-aged children (as compared to parents, for example), and therefore are well positioned to nominate those students who may be presenting in a manner that falls outside of the typical "curve" of development and behavior.

Early identification of mental and behavioral health problems is related to treatment engagement, as parents are more likely to seek out treatment once a mental health problem has

been documented (Cauce et al., 2002). Identifying mental health problems early also leads to better long-term outcomes, with the length of time a child's emotional and behavioral problems go unidentified being correlated with maladaptive trajectories over time (Gottlieb, 1991). Rather than waiting for children's problems to warrant the attention of specialty mental health providers, it may be possible to reduce the incidence of mental illness among children and adolescents by simply placing mental health services in more natural and accessible settings such as schools and primary care settings (Greenberg, Domitrovich, Graczyk, & Zins, 2005; O'Connell, Boat, & Warner, 2009). Given that youth mental illness alone costs the United States billions of dollars annually, efforts to reduce the incidence of mental illness through screening and early intervention could serve to not only improve quality of life for many children and families, but could also significantly reduce the fiscal burden of illness (Mrazek & Haggerty, 1994; O'Connell et al., 2009). A wealth of studies point to the effectiveness of early intervention programs, many implemented in the school setting, at improving child and adolescent social, emotional, and behavioral outcomes, with many early interventions being well suited to implementation in schools (Greenberg et al., 2001; Mytton, DiGuiseppi, Gough, Taylor, & Logan, 2006; O'Connell et al., 2009; Wilson & Lipsey, 2007).

Opportunities for a Full Continuum of Services

Not only do schools offer the opportunity to move "upstream" in order to identify and intervene before mental illness develops or worsens, but they also provide an unparalleled venue for providing a full continuum of mental health services and supports to students. The public health model focuses on preventing problems before they occur, by implementing policies and interventions that address risk factors for various health problems. Typically, public health frameworks provide primary, secondary, and tertiary interventions (Tomison & Poole, 2000). Primary interventions are those focused on entire populations or subpopulations, which aim to promote wellness and prevent problems before they occur. Secondary interventions focus on providing services to at-risk individuals, with the aim of reducing risk factors and preventing current difficulties from worsening. Tertiary interventions are more intensive interventions focused on addressing problems in the most severe cases. School systems are well suited to adopt this full continuum of service delivery (prevention through intensive intervention), often referred to as multitiered systems of support (MTSS), given their access to a large population of students, both those with and without current mental and behavioral health difficulties. In addition, schools already tend to operate from a preventive, multitiered framework with respect to academic performance; their use of universal screening and early identification and intervention to "catch problems early" and prevent academic decline align with MTSS for behavioral and emotional health.

Because most children are in schools for a significant portion of time, schools are arguably the most appropriate site for mental health promotion and prevention programs targeting all students in the school. These programs involve the promotion of social and emotional competence in all students, teaching of core positive behaviors and relationship skills, and mental health literacy. A wealth of literature demonstrates the positive impact of universal social emotional learning (SEL) efforts on both psychosocial (social, emotional, behavioral) and academic outcomes (Durlak, Weissberg, Dymnicki, Taylor, & Schellinger, 2011). Similarly, frameworks such as Positive Behavioral Interventions and Supports (PBIS) provide an array of evidence-based strategies to support classroom management by all teachers and positive behaviors among all students in a school building (U.S. Office of Special Education Programs, U.S. Department of Education, 2015).

Given the scarcity of specialty mental health services in rural settings, it is of utmost importance to invest in mental health promotion

activities in schools. SMH programs can tap existing natural resources to promote mental health and prevent worsening of mental health problems when they arise. There is evidence that this investment in whole school approaches to mental health may lead to a reduction in referrals to specialty mental health and special education (Weist, Evans, & Lever, 2003). In addition, certain issues that impact the whole school, such as bullying, have been found to be more prevalent in rural than in urban communities (5–10% more prevalent; Eisler & Schissel, 2004; Nansel et al., 2001), pointing to the importance of universal approaches to social, emotional, and behavioral issues in rural schools as part of a full continuum of mental health supports.

Care Provided in the Natural Environment

Children's mental health care is most effective when it is provided in the child's natural environment (e.g., school, home, peer group). Bronfenbrenner's (1979) ecological model discusses the transactional relationship between an individual and the systems they are embedded within. From this perspective, intervention will be most effective when it targets not only the target individual's behavior and functioning, but also the behavior of the systems that individual exists within (e.g., teacher, parent). Indeed, an ecological approach to intervention that addresses emotional and behavioral issues in the settings where they occur is related to increased generalization and maintenance of treatment gains (Atkins, Adil, Jackson, McKay, & Bell, 2001; Evans, 1999).

The school is one of these critical environments where intervention can occur. As noted by Cowen et al. (1996), schools typically have the second greatest influence on shaping a child's development (after families) and are an ideal setting to provide treatment. Mental and behavioral health problems are a significant barrier to learning, so it also makes sense that intervention aimed at reducing these barriers are co-located in the learning environment as much as possible (Iachini, Levine Brown, Ball, Gibson, & Lize, 2015). There is evidence that the extent to which mental health supports are well integrated into the school setting and curriculum actually predicts positive implementation and intervention outcomes (Rones & Hoagwood, 2000). In fact, some of the evidence-based interventions with the most compelling evidence of effectiveness, particularly for externalizing problems such as ADHD and oppositional defiant disorder, are best implemented in the school environment. For example, daily report cards, contingency contracting, and teacher-implemented positive behavior programs (e.g., Good Behavior Game) have demonstrated positive short- and long-term impact on students' psychosocial and academic outcomes (Perkins & McLaughlin, 2015; Tingstrom, Sterling-Turner, & Wilczynski, 2006). Some of the benefits of providing mental health care in the school setting include the fact that (a) the mental health provider can work with children in the school and classroom environments where they are experiencing difficulties, including helping to manage behavioral interventions and contingencies; (b) providers can observe and monitor children's progress in school directly, rather than relying on someone else's report; and (c) teachers can be integrated into the treatment plan and help extend support throughout the full school day.

Providing services in the schools also allows the mental health system to better engage youths' key socialization agents, namely teachers, parents, and peers. Child mental health treatment is most effective when the adults who interact with that child modify their own behaviors and interactions with the child. School mental health providers are able to partner with educators to keep abreast of student functioning and to address teacher questions and concerns related to mental health. Further, teachers who receive training and coaching in student mental health demonstrate increased capacity to respond to students experiencing psychological distress, improved teacher-student rapport, and reduced peer victimization in their classroom (Cappella et al., 2012; Jorm, Kitchener, Sawyer, Scales, & Cvetkovski, 2010). Teachers are critical to rural systems of mental health care

for children, as systems "task shift" from mental health care provision by specialty providers towards non-specialty providers, including health care providers and educators (Fulton et al., 2011; Kakuma et al., 2011). Similarly, children's health outcomes are improved when parents are involved in their children's mental health care (McKay & Bannon, 2004). This is consistent with literature demonstrating that parent engagement in their children's education is associated with student success even through their senior year in high school (Kellaghan, Sloane, Alvarez, & Bloom, 1993; Trusty, 1999). Rural schools may be better positioned than traditional health care settings to engage families in their children's mental health related to the unique concerns about stigma and privacy in rural settings. There is evidence to suggest that help seeking differs between rural and urban areas such that rural parents are more likely to enter the mental health care system via informal supports such as schools and school counselors, while urban parents are more likely to rely on pediatricians and psychologists (Girio-Herrera, Sarno Owens, & Langberg, 2013). Finally, schools also offer the unique opportunity to engage prosocial and influential peers in supporting student mental health by engaging them as peer mentors, advocates, and therapy group members.

Outcomes

In addition to the benefits of integrating mental health into schools related to increasing access to a multitiered system of student mental health supports in natural environments that leverage opportunities to engage key socialization agents, school mental health has a positive impact on student psychosocial and academic outcomes (Greenberg et al., 2003; Hoagwood et al., 2007; Walter et al., 2011).

Psychosocial Outcomes

There is a growing body of evidence suggesting that comprehensive school mental health programs are effective in reducing mental health problems and improving student emotional and behavioral functioning. For example, one multitiered (universal, selected, indicated) school mental health program delivered in two schools resulted in significantly fewer mental health difficulties, improved behavior, less functional impairment, and greater mental health knowledge, attitudes, beliefs, and behavioral intentions in their students (Walter et al., 2011). Teachers in these schools also reported that they had greater proficiency managing mental health problems that arose in their classrooms. Hussey and Guo (2003) documented similar positive gains among the 201 students participating in a comprehensive school mental health program, with significant reductions in conduct behaviors, ADHD symptoms, and depressive symptoms after 1 year of program implementation. Similar positive impact has been demonstrated across a variety of school mental health efforts, as outlined in a meta-analysis by Hoagwood et al. (2007) in which 95% of the 40 identified published studies between 1990 and 2006 examining the impact of school mental health interventions on mental health outcomes demonstrated positive mental health outcomes for students.

School-based prevention programs have achieved similar positive results. A meta-analysis conducted by Wilson and Lipsey (2007) examined the specific impact of school-based psychosocial prevention programs on aggressive and disruptive behaviors. Analysis of 249 experimental and quasi-experimental studies found average effect sizes of 0.21 (universal programs) and 0.29 (selected/indicated programs). This suggests the small, but significant, impact of prevention programs in schools on reducing aggressive and disruptive behaviors in children. In a review of 40 studies of the Good Behavior Game, a classroom-wide behavioral intervention for preschool and elementary school children, impressive reductions in disruptive, aggressive, and inattentive behaviors in the classroom were reported (Tingstrom et al., 2006). Another prevention program focused on social-emotional learning (Promoting Alternative Thinking Strategies, PATHS) is related to increases in emotional understanding and prosocial behavior

(Gibson, Werner, & Sweeney, 2015). Taken together, findings suggest that SMH programs, including school-based interventions implemented at different tiers of the continuum, are contributing to positive psychosocial outcomes for students.

The positive impact of SMH programs and interventions on students' psychosocial outcomes extends to programs in rural areas. For example, in a study of a rural school mental health program using non-manualized cognitive behavioral therapy, Michael et al. (2013) found that adolescent (ages 14–18 years) program participation was related to positive mental health outcomes over the course of treatment (average of 14.88 sessions). Similarly, a rural SMH program using CBT-based treatment with high school students through the Assessment, Support, and Counseling (ASC) Center found that 63% of the participants in the program showed improvement or recovery based on their reliable change index (RCI) on the Youth Outcome Questionnaire. The majority of the participants showed symptom reduction after participation in the school-based treatment (Albright et al., 2013). A rural school mental health program that integrated a suicide prevention intervention (Yellow Ribbon Ask 4 Help) into its model led to increased student knowledge about suicidal ideation, help seeking, and the Ask 4 Help program they learned about. Over a 4-year period after implementing the program, 21 students sought help for suicidal ideation using the method taught to students (Yellow Ribbon Card; Schmidt, Iachini, George, Koller, & Weist, 2014).

Academic Outcomes

The impact of school mental health services on academic outcomes, such as grades, attendance, and discipline experiences, has also been explored in the research literature. Unlike the impact of school mental health on psychosocial and behavioral outcomes, the relation between mental health care and academic outcomes is more complicated and research findings are mixed.

Our understanding of the impact of mental health care on academic outcomes is partly limited by the fact that studies in the child mental health research literature rarely measure educational outcomes (only approximately 15% of studies; Becker, Brandt, Stephan, & Chorpita, 2013). Those academic outcomes that are studied can be divided into two general types of outcomes: proximal and distal (Suldo, Gormley, DuPaul, & Anderson-Butcher, 2014). Proximal academic outcomes reflect performance over a typically short period of time or attitudes of current abilities. For example, proximal outcomes may include curriculum-based measurement (multiplication fact speed, reading fluency, reading comprehension), on-task behavior directly observed in class, or student perceptions of academic self-efficacy or school motivation. Distal outcomes, on the other hand, reflect skills over a longer period of time and are generally global performance measures. Distal measures of academics may include course grades, GPA, school attendance, office discipline referrals and suspensions, and perceptions of school climate or school satisfaction. Overall, research suggests that proximal academic outcomes are rarely studied and distal academic outcomes show inconsistency in their relation to school mental health services.

However, there is some compelling evidence for the positive impact of SMH on academics (Becker et al., 2013). Overall, school mental health interventions lead to improved academic performance (Greenberg et al., 2003; Welsh, Parke, Widaman, & O'Neil, 2001; Zins, Bloodworth, Weissberg, & Walberg, 2004), fewer special education referrals and lower need for restrictive placements (Bruns, Walwrath, Glass-Siegel, & Weist, 2004), decreased disciplinary actions (Jennings, Pearson, & Harris, 2000), greater engagement and feeling of connectedness to school (Greenberg et al., 2005), and higher graduation rates (Lehr, Johnson, Bremer, Cosio, & Thompson, 2004). One component of comprehensive school mental health that has been linked more consistently to academic outcomes is social emotional learning (SEL) programs (e.g., Catalano et al., 2003). For example, students in SEL programs, on average, rank 10 or more percentile points above their average peer not in an SEL

program on achievement tests (Payton et al., 2008); they also show better attendance, more positive classroom behavior, and better grades, and are less likely to be disciplined (Payton et al., 2008). In Australia, students receiving a well-implemented SEL program (Australian Kids Matter) demonstrated significantly better academic gains as compared to students in low-implementation-quality schools, even after controlling for socioeconomic factors. They were 2.6 months ahead by year 3 of the program and 6.2 months ahead by year 7 (Dix, Slee, Lawson, & Keeves, 2012). Furthermore, in a study of 2790 2nd–4th-grade students in six schools, they found that students in the three schools using the Responsive Classroom Approach (RCA) had statistically significant gains in standardized math and reading test scores when compared to students in the three non-RCA schools (Rimm-Kaufman, Fan, Chiu, & You, 2007).

Nonetheless, there are also several comprehensive studies that suggest that the link between school mental health and academics may not be definitive. Daly et al. (2014) compared the academic outcomes of 89 students who received community-partnered school mental health services to a matched comparison group of students who did not. Both behavioral academic outcomes (attendance and out-of-school suspensions) and standardized reading and math test scores were examined over a 3-year period. Results of the study suggested that there was not a statistically significant effect of receipt of school mental health services on any of these academic outcomes. Iachini, Levine Brown et al. (2015) conducted a meta-analysis of early school mental health intervention and its relation to academic outcomes for at-risk high school students. They defined early intervention as programs and services provided for a child who is identified as having a need for support but not to the degree of needing intensive individual interventions (i.e., tier 2 or prevention-focused services). The researchers found seven studies that met the criteria for their study, suggesting that the amount of research being conducted on this topic is quite limited. Results of the meta-analysis showed that there was not a significant effect of early intervention participation on academic outcomes, including GPA, attendance, and discipline. This mixed evidence suggests that more rigorous research on this topic is needed. Michael et al. (2013) argue that a more nuanced approach to examining the impact of school mental health on academic outcomes is needed; for example, maintenance of grades may be a successful academic outcome in the context of studying students who are already at risk of declining grades related to emotional and behavioral health challenges. In particular, it will be important to differentiate between outcomes for students whose mental health concerns are affecting their academic performance at intake versus students for whom they are not, examine outcomes longitudinally to understand long-term effects, and incorporate more proximal measures of academic progress into evaluation.

Very little research has been conducted examining the impact of rural school mental health programs on student academic outcomes. One study found that a rural SMH program in which clinicians used CBT showed some positive impact on academic outcomes. A large portion of the sample showed improvement or stability in grades, attendance, and discipline. Over half the students had higher GPAs after SMH treatment as compared to pretreatment. Nonetheless, none of these findings were statistically significant when comparing pre- and post-academic outcomes for the whole sample (58 high school students; Michael et al., 2013). More research on the impact of SMH on both psychosocial and academic outcomes for rural youth is needed.

Conclusion

Integration of mental health into the education system has the potential to offer our nation's youth a comprehensive array of mental health supports and to remedy many of the shortcomings of our traditional approaches to youth mental health. Federal, state, and local investments in school mental health reflect an acknowledgement of this potential, with MTSS becoming a regular part of the dialogue among educators. A systematic and streamlined partnership between schools and

communities to support a full continuum of mental health supports in schools can lead to better mental health for all students and increased access, earlier identification and intervention, and ultimately better outcome for those students with mental health challenges. This vision reflects a great reliance on the natural supports for students, including families and educators, and less reliance on an already scarce specialty mental health system. In rural communities, where specialty mental health is even more limited and traditional mental health care has achieved less success in serving children and families, this multitiered, public health approach is critical.

In an effort to support states, districts, and schools in advancing the quality of their comprehensive school mental health systems, the national Center for School Mental Health developed an empirically based set of national performance standards for school mental health quality and sustainability. Several federal partners from the education and mental health sectors have supported the adoption of these standards, and districts and schools have been encouraged to utilize a free, online mechanism to engage in quality improvement grounded in the performance measures, the School Health Assessment and Performance Evaluation System, (SHAPE, www.theshapesystem.com). These standards reflect best practices in all areas of quality school mental health, and districts and schools now have the opportunity to engage in a systematic quality improvement process to advance their comprehensive school mental health systems.

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Building Policy Support for School Mental Health in Rural Areas

2

E. Rebekah Siceloff, Christian Barnes-Young, Cameron Massey, Mitch Yell, and Mark D. Weist

Emotional and behavioral health disorders are prevalent among children and adolescents in the United States, yet the systematic delivery of services to treat these disorders is broadly lacking. In recent decades, schools have been playing an increasingly important role in addressing the mental health needs of youth by serving as a critical point of contact for mental health promotion and intervention services. School mental health (SMH) programs appear to be a particularly valuable source of mental healthcare in rural areas where service providers are in short supply and barriers to adequate care are abundant. Although SMH programs are a promising means to reduce barriers that impede service utilization in rural settings, they remain vulnerable to the challenges that exist in the broader context.

In this chapter, we discuss the unique challenges to addressing the mental health needs of children and youth that exist in rural settings. We begin by describing the mental health status of children and adolescents nationwide and then focus our attention on rural settings. As part of our discussion, we review what has been done at the federal level to mitigate rural disparities as well as how one southeastern state is addressing the mental health needs of its rural youth. Together, this information provides an important backdrop for understanding and overcoming the unique challenges of implementing SMH programs and services in a rural setting, which we discuss in the final section of this chapter.

Emotional and Behavioral Health of Children and Adolescents

Addressing the emotional and behavioral health needs of children and adolescents is a critical public health challenge that requires the collaborative efforts of policy makers, mental health professionals, researchers, families, and other stakeholders, including educators and school administrators. Epidemiological studies of population health and mental healthcare play an essential role in advancing the mental health of children and adolescents by providing evidence of the rate, course, and correlates of emotional and behavioral health concerns and service utilization. These studies also provide important information about the disproportionate mental health burden experienced by subgroups of the

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population, such as rural residents, and establish an empirical basis for the development of national health policy to reduce such disparities and to promote mental wellness.

Numerous federal policy reports emphasize the need to expand SMH programs and services, including reports by the U.S. Surgeon General on Mental Health (U.S. Public Health Service, 1999) and Children's Mental Health (U.S. Department of Health and Human Services, 2000), and presidential calls to action (President's New Freedom Commission on Mental Health, 2003). Conclusions from these reports are bolstered by epidemiologic data that suggest approximately 1 in 4–5 children and adolescents meet the criteria for an emotional or a behavioral health disorder (Carter et al., 2010; Reinherz, Giaconia, Lefkowitz, Pakiz, & Frost, 1993; Roberts, Roberts, & Xing, 2007). In more focused analyses, the National Institute of Mental Health (NIMH) in collaboration with the National Center for Health Statistics assessed select mental health disorders in children and adolescents aged 8–15 years as part of the National Health and Nutrition Examination Survey (NHANES). Findings in the 2001–2004 NHANES estimated that 13.1% of children and adolescents met the criteria for at least one mental health disorder in the previous 12 months (Merikangas, et al., 2010a). Although these data helped to establish a national database on youth mental health, conclusions about the rate of mental health disorders among youth were limited to the relatively narrow array of disorders assessed in the NHANES. Assessing a wider array of mental health disorders in a slightly older sample of 13- to 18-year-old adolescents, the National Comorbidity Survey—Adolescent Supplement (NCS-A) found overall prevalence rates of 40.3% for 12-month disorders (Kessler, Avenevoli, Costello, Georgiades, et al., 2012a) and 49.5% for lifetime disorders (Merikangas, et al., 2010b).

Differences in the prevalence of disorders in the NHANES and NCS-A likely reflect methodological differences in assessment protocols, including the types of disorders assessed in each study and their typical developmental course. For example, of the emotional and behavioral health disorders in the NHANES, the highest 12-month rates were found for attention-deficit/hyperactivity disorder (ADHD; 8.6%) and mood disorders (3.7%) (Merikangas et al., 2010a). Compared to younger participants (ages 8–11 years) in the NHANES, older participants (ages 12–15 years) had lower rates of ADHD (though this difference did not reach statistical significance) and significantly higher mood disorder rates, particularly major depressive disorder. In contrast, 12-month prevalence estimates in the NCS-A indicated that the most common disorder classes among adolescents (ages 13–18 years) were anxiety disorders (24.9%), behavior disorders (16.3%), and mood disorders (10.0%) (Kessler et al., 2012a).

Findings in the NHANES and NCS-A studies point to the early onset and developmental course of emotional and behavioral disorders. In the NCS-A, parent/caregiver reports indicated that the onset for all disorder classes occurred by age 15 for 50% of adolescents with at least one mental disorder (Merikangas et al., 2010b). Early onset was particularly evident for those with anxiety disorders, with 50% having onset by age 6. The NCS-A also found that mental health disorders are generally moderate and are often comorbid. The majority of disorders represented in the NSC-A sample were largely mild (58.2%) to moderate (22.9%) (Kessler, Avenevoli, Costello, Green, et al., 2012b). However, the 12-month prevalence of serious emotional disturbance was 8%, accounting for a sizeable minority (18.8%) of the adolescents who met the criteria for a mental disorder. Approximately 20% of adolescents in the NCS-A sample (40% of adolescents with clinically elevated symptoms) met the criteria for more than one *DSM-IV* mental disorder, indicating that comorbidities are common among youth with mental health needs (Merikangas et al., 2010b). Importantly, comorbidity was associated with risk of severe emotional disturbance (SED) in this sample (Kessler et al., 2012b). Whereas adolescents with 3 or more disorders accounted for only 29.0% of those with a 12-month disorder, they represented the majority (63.5%) of those with SED.

Unmet Mental Health Need

Despite the prevalence of mental health disorders among children and adolescents in the United States, the systematic delivery of services to treat these disorders is lacking. Among adolescents in the NCS-A sample, those with a mental health disorder had 12-month and lifetime service utilization rates of 45.0% and 36.2%, respectively (Costello, He, Sampson, Kessler, & Merikangas, 2014; Merikangas, He, & Burstein, et al., 2011). In the 2001–2004 NHANES, approximately 50% of children and adolescents with a mental health disorder had received services in the previous 12 months (Merikangas et al., 2010a). Disorders assessed in the NHANES sample, however, did not include some of the disorders found to have the lowest treatment rates in the NCS-A, such as specific phobias (Costello et al., 2014; Merikangas et al., 2011). Both the NCS-A and the NHANES found that service use was highest for ADHD, CD, and ODD, particularly among boys who are also disproportionately affected by these disorders (Costello et al., 2014; Merikangas et al., 2010, 2011). Although service utilization was significantly associated with disord er severity in both the NHANES and NCS-A, 12-month and lifetime service use rates in these samples suggest that mental health treatment is lacking for a substantial proportion (approximately 50%) children and adolescents with severe disorder s (Merikangas et al., 2010a, 2011).

A number of studies examining service-use patterns have found SMH programs to be the primary source of services for youth with emotional and behavioral health concerns (Angold et al., 2002; Burns et al., 1995; Costello et al., 1996; Costello et al., 2014). The Caring for Children in the Community study examined the use of mental health service use among rural youth aged 9–17 years (Angold et al., 2002). In the previous 3 months, 13.3% of all participants (including those not identified as having a mental health diagnosis) received mental healthcare services in one or more professional service sectors, including schools, general medicine, and specialty mental health. School-based mental healthcare was accessed at nearly double the rate of specialty mental health services. Whereas only 4.6% of the participants received services in the specialty mental health sector, 8.9% of the participants utilized school-based mental healthcare services. Although it is unclear whether participants received different types of services in each sector, findings in this study suggest that SMH services may be especially critical to address the unmet mental health needs of children and youth in rural settings.

Mental Health Disparities in Rural Youth

Healthy People 2020, an initiative of the U.S. Department of Health and Human Services (HHS) that provides a guiding framework to support health promotion and disease prevention, describes health disparities as differences in health that are linked with socioeconomic disadvantage (see healthypeople.gov). Mental health disparities may include higher levels of emotional and behavioral disorders, reduced service access, lower or disrupted service utilization, and poor mental health outcomes among an identified subgroup in comparison to the broader population. To reduce mental health disparities and their impacts, there is a dire need for effective prevention, intervention, and health promotion services that meet the needs of diverse populations.

Rural residents have been found to experience a number of health disparities and have been designated a special population that warrants focused attention to better understand how rural living affects their emotional and behavioral health and mental healthcare (National Center for Health Statistics, 2014). Although only 20% of the population resides in a rural environment, the geographic landscape of the United States is largely rural. While rural environments represent a diverse array of economies, populations, geographies, and ideologies, they are often perceived in terms of certain shared features that comprise a broader "rural culture" that is distinct from the cultural milieu of urban environments (Barbopoulos & Clark, 2003). For example, rural settings have been described as beautiful and serene and as

being relaxed, friendly, and safe, and rural residents are often characterized as being socially and politically conservative and having strong family values (Fagan & Hughes, 1985). Paradoxically, however, many of the social, economic, and geographic conditions that are common in rural areas have been associated with disadvantage. Rural areas are often geographically expansive with sparse populations and high rates of poverty and unemployment, low levels of educational attainment, and a high proportion of elderly people (Monk, 2007; Stamm, 2003; Wagenfeld, 2003).

Together, these and other features of rural living present unique challenges to addressing the emotional and behavioral health needs of children and adolescents. As discussed in a subsequent section of this chapter, mental health provider shortages are a critical concern that disproportionately affect rural areas and reduce the availability, accessibility, and acceptability of mental healthcare options for children and adolescents who reside in these settings. These service barriers have important implications for the continuity, effectiveness, and outcomes of the mental healthcare provided to rural youth and their families. For example, compared to non-rural youth, those residing in rural settings have been found to be more likely to enter services following longer periods of unmet need and with more severe symptoms (Heflinger, Shaw, Higa-McMillan, Lunn, & Brannan, 2015). In turn, service delays or disruptions may contribute to more problematic disorder trajectories and increase the likelihood that more intensive and costly services will ultimately be required (Heflinger et al., 2015; Torio, Encinosa, Berdahl, McCormick, & Simpson, 2015).

Despite evidence linking rural residence with reduced service access and more problematic mental health outcomes, research examining the prevalence of mental health disorders in rural and non-rural youth tends to find few geographic disparities. Similar to the rates observed in community samples of non-rural youth (Carter et al., 2010; Reinherz et al., 1993; Roberts et al., 2007), approximately 1 in 4–5 children residing in a rural area has been found to have an emotional or a behavioral health disorder (Angold et al., 2002; Burns et al., 1995; Polaha, Dalton, & Allen, 2011). Among rural African-American and White youth aged 9–17 years in the Caring for Children in the Community Study, the 3-month prevalence of mental health disorders was 21.1% (Angold et al., 2002). Similarly, 21.1% of rural youth aged 4–16 years attending a pediatric primary care appointment met criteria indicating clinically significant internalizing, externalizing, and/or attention behaviors (Polaha et al., 2011).

Direct comparisons of mental health disorder rates in rural and urban or other non-rural samples of youth also reveal few differences in the overall prevalence of emotional and behavioral health disorders in community samples (Breslau, Marshall, Pincus, & Brown, 2014; Burns et al., 1995) and national surveys (Merikangas et al., 2010b). For example, the Great Smoky Mountains Study of Youth (GSMS) examined the prevalence of mental health disorders in a large community sample of youth aged 9–13 years in western North Carolina, approximately half of whom resided in a rural setting (Burns et al., 1995; Costello, Angold, Burns, Stangl, Tweed, Erkanli, & Worthman, 1996). Overall, 20.3% of the sample met the criteria for a mental disorder in the previous 3 months. No differences in prevalence rates were found between rural and non-rural youth that were not accounted for by poverty. Furthermore, in a nationally representative sample of adolescents, the prevalence of disorders did not differ between residents of metropolitan and other urban areas and those living in rural settings (Merikangas et al., 2010b).

Although available data indicate that the overall prevalence of mental health disorders in rural and urban areas is largely similar, rurality has been consistently linked with disproportionately higher rates of suicide and substance use (Fontanella et al., 2015; Hirsch, 2006; Searles, Valley, Hedegaard, & Betz, 2015; Singh & Siahpush, 2002). Suicide is a major policy public health concern and is often a complication of mental illness (Avenevoli, Swendsen, He, Burstein, & Merikangas, 2015; Nock et al., 2013). National data indicate that suicide is the second leading cause of death among youth between the ages of 10 and 24 years (National Center for Health Statistics, 2014). Rates in rural

areas are even more concerning. Between 1996 and 2010, suicide rates in rural areas were nearly twice that in urban areas for both boys and girls, and evidence indicates that the gap continues to widen (Fontanella et al., 2015).

Similarly, national estimates of substance use by youth and young adults warrant substantial concern, yet rural adolescents use some substances at even higher rates. Specifically, although overall substance-use rates among all persons aged 12 years and older have been found to be higher in urban than rural settings, rates of alcohol and illicit substances use (other than marijuana) are higher among rural adolescents aged 12–17 years than urban youth (Lambert, Gale, & Hartley, 2008). Rates of methamphetamine and alcohol use have been shown to be particularly high in very rural areas (i.e., those not adjacent to an urban area) (Lambert et al., 2008). Greater rurality has also been linked with higher rates of binge drinking, heavy alcohol consumption, and driving under the influence of alcohol for youth aged 12–17 years (Lambert et al., 2008).

Unmet Mental Health Need Among Rural Youth

The prevalence of mental health disorders among rural youth along with disparate rates of suicide and problematic substance use indicates that there is an urgent need for effective mental healthcare in rural settings. However, there is an abundance of evidence indicating that this need goes largely unmet. As has been found in national samples of youth, the majority of rural youth with emotional or behavioral health concerns do not receive mental health services (Angold et al., 2002). Low service use rates among rural children and adolescents have been attributed, in part, to shortages of mental health providers in rural areas. Although the impact of minimal or no mental healthcare options on service use is apparent, much of the available data do not indicate substantial differences in the rate at which services are utilized by rural and non-rural youth. For example, in the GSMS, 3-month service use rates of 15.3% and 17.5% were found for 9- to 13-year-old rural and urban youth, respectively (Burns et al., 1995). A comparable service use rate of 13.3% was found in a sample of rural youth aged 9–17 years from counties in western North Carolina (Angold et al., 2002). Similarly, no service use differences were found as a function of metropolitan residence among youth in the NCS-A (Merikangas et al., 2011). Importantly, however, many studies do not account for differences in provider or service sector, service dose, treatment adherence, or a number of other factors that differentiate treatment outcomes. Therefore, findings of negligible differences in service utilization should not be interpreted as evidence that rural and non-rural youth utilize services that are similarly accessible or effective.

Efforts to garner a more nuanced and accurate depiction of rural mental health are constrained by the common treatment of rurality as a dichotomous variable (i.e., rural or not) in both research and practice. Indeed, the dichotomization of the rural-urban continuum is evident in government offices where "rural" is defined as essentially being anything that is not urban (US Census, USDA, and HRSA). Broad generalization of rural settings fails to capture distinguishing features that exist along the rural spectrum. As a result, it remains unclear as to what extent mental health disparities are attributable to characteristics of the rural setting and how rurality may interact with other factors (e.g., poverty, geographic isolation) to mitigate or exacerbate mental health burden in rural youth. Demonstrating the importance of moving beyond a rural vs. non-rural dichotomy, Heflinger et al. (2015) found that mental health service trajectories differed for children residing in areas at the extreme ends of the urban-rural continuum. Specifically, children in the most rural areas were the least likely to receive timely follow-up care (i.e., within 60 days) after being discharged from an out-of-home (OOH) placement and were more likely to receive another OOH placement compared to those in the most urban areas. As these findings suggest, advancing rural mental health requires an appreciation of the differences that exist within a broad rural category.

Advancing Rural Mental Health: Policy Foundations and Considerations

Understanding the extent to which rurality contributes to the prevalence and outcomes of behavioral health issues is critical in the development of effective policy. Although service providers and researchers have long acknowledged the potential effect of rurality on mental health, organized responses have only emerged in recent decades. A fundamental shift toward understanding mental health disparities occurred at the federal level during the 1970s when President Carter issued an executive order creating a commission to examine mental health in the United States. The President's Commission on Mental Health (PCMH) was groundbreaking not only because it brought attention to mental health as a significant public health concern but also because of the emphasis that was placed on mental *health* rather than *illness* (Grob, 2005). Although rural mental health was not the primary focus, the findings and recommendations of the PCMH (1978) established a need for specialized attention in this area (Grob, 2005). In addition to noting gaps in the availability of rural mental health services and the need for research and data on rural mental health needs, the report brought attention to the plight of children with unmet needs and to the lack of adequate services for this population. The PCMH ultimately contributed to the passage of the short-lived Mental Health Systems Act in 1980. However, this policy never gained traction because it was largely reversed the following year with the inauguration of President Reagan, and associated decreased focus on the role of the federal government in the promotion of mental health during his presidency.

The rural health movement gained significant momentum at the federal level in 1987 with the creation of the Office of Rural Health Policy (ORHP) and the National Rural Health Advisory Committee within the Health Resources and Services Administration (HRSA; DeLeon, Wakefield, Schultz, Williams, & VandenBos, 1989). The ORHP serves as the focal point for federal policy and is responsible for overseeing nationwide efforts to strengthen and enhance health service delivery to rural populations. The initial focus of the ORHP was physical health issues, but with the passage of the Omnibus Budget Reconciliation Act (OBRA 1989), this focus was expanded to include mental health issues.

Despite efforts to advance rural mental health, the *Commission on Mental Health*—convened by President George W. Bush as part of the *New Freedom Initiative*—identified two critical issues that continue to impede progress: (a) policies and practices developed for metropolitan areas are often inappropriately applied in rural areas, and (b) important rural issues are misconceived, minimalized, or disregarded as irrelevant in national policy (President's New Freedom Commission on Mental Health 2003). The report underscored the need to promote awareness of rural mental health concerns and to ensure that these concerns are meaningfully addressed in mental health policies and practices that are appropriate and relevant in rural settings. To meet this need, it is necessary to understand the unique challenges and barriers experienced by providers and consumers in rural settings.

Rural Mental Health System Challenges

Rural mental health systems are often characterized as fragmented, comprised of an array of services that are often under-resourced and loosely organized. Despite apparent linkages and the need for collaboration, rural systems tend to operate in silos where they lack meaningful opportunities for integrated care, interagency cooperation, referral options, and collaboration (Gamm, Stone, & Pittman, 2010). Thus, addressing widespread gaps in rural behavioral healthcare is a critical public health challenge. The development of effective policies to address these gaps and strengthen rural mental health systems requires an understanding of the core components that, despite being necessary for optimal system functioning in a given context, are missing or insufficient. In the following sections, we review rural mental health system challenges that reduce

the availability, accessibility, and acceptability of mental health services for youth and their families (Barbopoulos & Clark, 2003; Human & Wasem, 1991). Given the importance of these service factors to mental healthcare, challenges to available, accessible, and acceptable services have the potential to create barriers for both providers and consumers that are greater in quantity and impact than barriers in urban areas (Pullmann, VanHooser, Hoffman, & Heflinger, 2010).

Availability of Services

A critical challenge to behavioral healthcare in rural settings is inadequate infrastructure and human resources. Cummings, Wen, and Druss (2013) found that fewer than 50% of rural counties had a mental health facility providing youth services, with even fewer counties having facilities to serve youth presenting more severe mental health issues. Not only were comprehensive mental health services less available in rural than non-rural areas, but those that were available were narrower in scope. Rural residents are also persistently and disproportionately impacted by an insufficient supply of trained health service providers (Gould, Beals-Erickson, & Roberts, 2012; Thomas, Ellis, Konrad, Holzer, & Morrissey, 2009). Shortages in the supply of mental health providers are apparent across a number of professional categories, including licensed professional counselors, marriage and family therapists, social workers, psychologists, and psychiatrists (Ellis, Konrad, Thomas, & Morrissey, 2009; Thomas & Holzer, 2006). As designated by the HRSA, more than one-third of all rural residents live in a Health Provider Shortage Area (HPSA), and more rural than metropolitan counties receive this designation (see www.hrsa.gov/shortage).

The lack of available behavioral health services and inadequate human resources also have implications for the types and quality of treatment options for youth and their families. Rural youth have been found to use specialty mental health services at lower rates than non-rural youth. For example, the GSMS found that only 2.6% of rural youth used specialty services compared to 6.7% of urban youth (Burns et al., 1995). The use of specialty services has been found to be particularly low among rural minority youth (Angold et al., 2002). The lack of specialty services has been implicated in the increased use of providers other than behavioral health professionals and the increased use of services delivered in hospital or residential settings by rural youth. Pediatricians and other general practitioners have been found to play greater roles in the treatment and pharmaceutical management of behavioral health issues among rural relative to non-rural youth (Komiti, Judd, & Jackson, 2006; Koppelman, 2004; Polaha et al., 2011). Without appropriate training in behavioral health management, however, general practitioners may be underqualified to diagnose and treat behavioral health disorders (Lavigne et al., 1993). Compared to youth in more urban areas, rural youth have also been found to be more likely to use hospital emergency services to treat behavioral health issues and to be twice as likely to receive out-of-home services and to have longer stays in these placements (Heflinger et al., 2015). Mental health provider shortages in rural areas contribute to service barriers that delay the initiation of services and to the presence of greater symptom severity upon service entry among rural residents, thereby increasing the need for more intensive and costly services.

Gaps in rural behavioral healthcare infrastructure and human resources impact not only service consumers and their families but also mental health service providers and stakeholders in other agencies, such as education, juvenile justice, and child welfare. Rural service providers may experience heavy caseloads representing a broad array of behavioral health issues of varying severity that require treatments beyond their expertise. Without an adequate network of mental health professionals and interagency cooperation, providers often have limited referral options and few opportunities for collaboration (Brems, Johnson, Warner, & Roberts, 2006; Gamm et al., 2010). As a result, they may overextend their time and may feel pressure to offer services that are beyond their skills. These challenges can lead to provider

burnout and may negatively affect the retention of effective behavioral health providers (Kee, Johnson, & Hunt, 2002).

Telehealth options, including telepsychiatry, offer an innovative means to address the challenges of provider shortages by using telecommunications technology to support the delivery of health services by a remote professional (Mackie, 2015). The inclusion of technology in behavioral healthcare practice has demonstrated the potential to produce positive outcomes (Benavides-Vaello, Strode, & Sheeran, 2013; Mackie, 2015). Technology may provide a means to access behavioral health services in rural settings with limited availability of behavioral health specialists. However, a key barrier to technology-supported behavioral health services in rural settings is that, for both consumers and providers, access to broadband Internet may be lacking or insufficient. Approximately 27% of rural residents do not have access to high-speed Internet, and rural providers more often identify limited client Internet connectivity or service access as a key barrier than providers in other geographic areas (Mackie, 2015). Further, rural residents may be more uncomfortable with technology use than suburban and urban residents (Ramsey & Montgomery, 2014). These differences highlight the need to ensure opportunities for improved technology literacy among rural populations. Special consideration should also be given to the importance of rapport building within the context of telehealth communications (Goldstein & Glueck, 2016; Nelson & Patton, 2016). In addition to establishing a therapeutic alliance with the child or adolescent receiving services and his or her family, it is important that rapport also be established with other stakeholders, including teachers and the referring provider (Glueck, 2013). Families often have established relationships with these individuals and may value their input about the telehealth services they receive.

Furthermore, the use of technology for mental health service delivery introduces a number of regulatory considerations, including issues related to licensing of professionals (e.g., different standards and bureaucratic demands for different professionals), differences in policies across jurisdictions, insurance barriers, cumbersome and time-consuming fee-for-service reimbursement, and privacy concerns (Kramer, Kinn, & Mishkind, 2015). To address these issues, state and federal policies are needed that promote healthcare rights and ensure accessibility of behavioral health services to all citizens. For example, most states have adopted telemedicine parity laws to enforce insurance coverage for services provided by telemedicine. Unfortunately, however, there is a general lack of specific policy and procedural guidelines for states and localities for use of telehealth services, limiting their use and impact (Mackie, 2015).

Accessibility of Services

The extent to which behavioral health services are accessible to youth and their families has important consequences for the initiation and continuation of services and for disorder-related outcomes (Robinson et al., 2012). Gaps in system infrastructure that are common in rural settings contribute to accessibility barriers experienced by youth with behavioral health issues and their families. The dearth of local behavioral health services found in many rural areas requires that families commute to receive services. Because rural areas are often geographically expansive, the travel distance to the nearest available service provider may be great, particularly for residents of areas that are remote or not adjacent to a metropolitan area. Therefore, the accessibility of behavioral health services in rural areas is largely dependent upon the availability of resources that enable travel to and from appointments or that otherwise attenuate travel-related burden. For many rural families, these resources are lacking. Across a number of studies, parents and caregivers of youth with behavioral health issues have reported that transportation is a primary barrier to accessing services (Pullmann et al., 2010; Robinson et al., 2012). Families may lack or have unreliable personal transportation and limited funds to support travel. Public transportation is often absent in rural areas or unable to provide connections to distant locations. Additionally,

as a result of limited funding, rural behavioral health systems are often unable to provide transportation services or to offset travel costs incurred by families. Although some travel support may be available within the community (e.g., transportation that is fee based, church sponsored, or provided by a friend or family member), competing demands (e.g., work, other children) and scheduling restrictions often make it difficult to coordinate transportation to distant services (Robinson et al., 2012).

Acceptability of Services

The extent to which services are acceptable to consumers of behavioral health services is critical to service utilization. In rural communities, stigma is often cited as a barrier that reduces the acceptability of behavioral health services (Fox, Blank, Rovnyak, & Barnett, 2001; Jameson & Blank, 2007; Schank & Skovholt, 2006; Starr, Campbell, & Herrick, 2002). Stigma may involve holding negative stereotypes of behavioral health issues experienced by others as well as self-stigmatizing (Corrigan, 2004). Studies have shown that rural families not only experience stigmatization related to mental illness but that stigma may prevent families from acknowledging a problem or seeking treatment (Williams & Polaha, 2014).

In addition to the potential negative effect of stigmatization, the extent to which parents perceive their child to be in need of mental health services may be influenced by factors such as general knowledge of mental health, expectations for developmentally appropriate behaviors, and ability to appropriately identify that their child may be in distress (Godoy, Carter, Silver, Dickstein, & Seifer, 2014). Parents and other family members' and caregivers' ability to accurately assess the need for services may be particularly limited for young children. In one study, although half (51%) of children were identified by their kindergarten teacher as being at risk for emotional, behavioral, social, or adaptive problems, only one-third of parents believed that their child had a problem (Girio-Herrera, Owens, & Langberg, 2013). It may be particularly difficult for parents and caregivers to recognize behavioral health concerns in infants and toddlers; thus, children at this point in development may have an elevated risk of having unmet mental health need (Godoy et al., 2014).

Consumers' perceptions of the quality of services may also influence the extent to which they are perceived to be acceptable. For example, families have reported concerns that primary care providers may offer behavioral health treatment without having the proper training and knowledge to do so and without the consultation of appropriate specialists (Robinson et al., 2012). Such perceptions are important given that the extent to which consumers perceive a provider to be effective has been shown to be predictive of help seeking (Komiti et al., 2006). Families have also noted that their perceived acceptability of services is influenced by factors operating at other levels of influence. For example, families have reported concerns that their child's or adolescent's behavioral health problems may be treated as law enforcement or legal issues, which reduces the perceived acceptability of available services (Robinson et al., 2012).

Challenges to SMH in Rural Communities

Although schools have been identified as the "de facto" mental health system for children and adolescents (Burns et al., 1995), SMH programs face a number of challenges to meeting students' needs (Weist, Paternite, Wheatley-Rowe, & Gall, 2010). Rural programs often have to contend with shortages of school-based service providers, which may result in delays or gaps in services for students. For example, although transportation barriers are alleviated by the accessibility of SMH services to students, they may continue to hinder engagement in treatment for members of a student's family. Moreover, accessibility remains a challenge for students who receive services from other members of the interdisciplinary team (e.g., psychiatrists, clinical care coordinators, advanced practice nurses) that typically do not

deliver services in schools. Many centers link families with transportation services that can bring clients to appointments and bill a payer source. Other centers provide transportation for their clients and build the expense into their overhead. More recently, centers have been exploring the option of sending other members of the interdisciplinary team—such as a nurse practitioner—to the schools where school-based services are located to provide more services where the clients are readily available.

Case Study: School Mental Health in South Carolina

The diversity of rurality and challenges to meeting the mental health needs of rural youth are well represented in South Carolina, a largely rural state. The U.S. Census Bureau (2014) estimates that currently, the majority of the nearly 5 million residents of South Carolina are either non-Hispanic-White (63.9%) or African-American (27.8%). Statewide, the majority of adults over age 25 completed high school (85.0%) and a sizeable minority had at least a bachelor's degree (25.3%). Children and adolescents under age 18 years accounted for 22.4% of the population.

Mental healthcare has a long history in South Carolina, with legislative support for institutionalized services dating back to the 1800s (South Carolina Department of Mental Health, 1996). Expanding its service approach, the state established its first outpatient center in Columbia, the state capital, in 1923. Local mental healthcare received increased government support and funding in the 1960s with the passage of the South Carolina Community Mental Health Services Act (1961) and the Federal Community Health Centers Act (1963). In 1964, South Carolina established a Department of Mental Health, and a few years later, the state became home to the first mental health complex in the southern United States with construction of the Columbia Area Mental Health Center. Since that time, the South Carolina Department of Mental Health (SCDMH) network has grown into one of the largest hospital and community-based systems of care in the state.

Recent decades have brought continued efforts to address the mental health needs of children and adolescents in South Carolina. A key development came in 2014 when the state legislature extended eligibility for youth mental health services from ages 18 to 21 (A173, R190, H3567). Also that year, the legislature created a taskforce to review and make recommendations on issues of school safety. In the Report of the School Safety Taskforce (2015), much attention is given to the role of schools in meeting child and adolescent mental health needs as well as how that role is best implemented and supported. The SCDMH expanded their capacity by obtaining a youth suicide prevention grant from the Substance Abuse and Mental Health Services Administration (SAMHSA). This 5-year award, which began in 2015, will support *Young Lives Matter*, a project that aims to reduce youth and young adult suicide 20% statewide by 2025.

Despite efforts to elevate youth mental health statewide, addressing the needs of children and adolescents in rural counties continues to be a unique challenge. Given the composition of the state, rural health issues are highly salient. Of the 46 counties in South Carolina, 20 have been identified as rural by the ORHP. These communities face challenges unique to the rural landscape. Residents living in rural South Carolina live in some of the poorest school districts in the country, and over a third of the children attending these schools are from families living below the poverty line (Rural School and Community Trust, 2007). Rates of mental illness in rural areas of southeastern states can be quite high. For example, approximately 25% of youth report having been exposed to a traumatic event sometime in their life (Costello, Erkanli, Fairbank, & Angold, 2002). With the high rates of mental health issues that families living in rural areas of South Carolina face, it is of significant concern that many rural populations are limited in their ability to access quality mental health services.

In the remainder of this chapter, we focus our discussion of behavioral health and policy issues on efforts to elevate the SMH agenda to address

the unmet mental health needs of families in rural South Carolina. We first provide background information about the increased attention to educational funding in the state and the role of the SCDMH SMH pogram in meeting the mental health needs of children and adolescents in public school settings. We then center our discussion the school-based services provided by the Tri-County Community Health Center (TCCHC) to families residing in three rural counties located in the northeastern region of the state. Although these counties are all identified as rural, they differ on a number of characteristics, including population density, racial composition, population-level educational attainment, and percentage of residents living in poverty (U.S. Census Bureau, 2014). We describe the innovative strategies and approaches the TCCHC has developed in collaboration with school districts and other local organizations to address the unique challenges and barriers to advan cing SMH in these rural counties.

The Development of SMH in Rural SC Counties

The issue of educational funding has been the focus of much attention in SC, sparked largely by a lawsuit that was initiated in 1993 by a collection of 36 rural school districts to seek greater equity. The ensuing legal debate over educational funding and its role in the provision of minimally adequate education spanned two decades as the case made its way through the state's legal system. Finally, in 2014, the state's Supreme Court decided in favor of the eight remaining plaintiff districts, ruling that the state had failed in its responsibility to provide children in the state's poorest districts with a "minimally adequate" education (Abbeville County School District v. State of South Carolina, 2014). Although the remedy is still subject to legislative debate, a resolution to inequitable educational funding will not only support educational objectives, but also has the potential to elevate the SMH agenda.

In this context of attention to enhancing resources for education in SC, there has been increasing connection to the importance of SMH programs in reducing and removing barriers to student learning. As such, the SCDMH school mental health program has become a prioritized initiative, with a goal to extend to most of the state's 1300 schools. At the start of the 2015–16 academic year, the SCDMH's school-based program had mental health professionals in approximately 500 public schools, serving 13,000 students/year. School-based services are part the array of services offered by the TCCMHC serving the above-mentioned rural counties in northeastern SC. In these three counties, SMH services are provided by counselors who serve students attending schools in each district in the catchment area. These professionals typically have a master's degree in social work, counseling, education, psychology, or other human service programs. One of the strengths of the Center's school-based program is its partnerships with four school districts. The Center's school-based counselors are integrated into the schools they serve and work closely with the school districts' staff to effectively meet the needs to students and their families. The Center has seven mental health professionals providing services in 14 schools, including elementary, middle, and high schools. The Center bills most payer sources (e.g., Medicaid, private insurance) and provides care to the uninsured, including offering services on a sliding scale based on income, and providing case management assistance to these families to obtain insurance.

To address the inherent challenges rural SMH programs face, TCCMHC and the collaborating school districts have developed innovative strategies and services. For example, in order to help expand limited funds, one school district sought and was awarded a grant to implement and evaluate a bullying prevention program. Seeking outside funding sources can help supplement limited financial resources in rural areas. Other such strategies that have been developed to address uniquely rural challenges include addressing the intersection of rural geography and school size. Although rural communities are often considered "small," that descriptor applies only to population and not geographic size. In some rural communities

with low population density, school districts pool students from a large geographic area to one high school or combined middle and high school to create a large number of students per school. Other communities opt to have multiple schools for the large area. In areas served by multiple schools that have smaller student bodies, it may not be sustainable to follow the best practice of one clinician per school. To address this challenge and ensure the sustainability of SMH positions, clinicians can be assigned to two schools so they will have a sufficient number of students to generate a sustainable caseload. Limiting the number of schools served by a clinician to two helps ensure that students have adequate access to services and the school-based counselor is viewed as a member of the school building and team.

The Center helps to address barriers that may reduce participation in services. While the majority of school-based services are provided in schools, many services (e.g., psychiatry, primary health care) are still provided in clinics. Therefore, barriers that reduce the accessibility of these services remain a concern. To enhance the accessibility of these services, TCCMHC assists families with transportation to its clinics for services. The Center also supports service accessibility by being on the cutting edge of telepsychiatry, growing around the nation related to the shortage of psychiatrists especially in highly rural areas (McGinty, Saeed, Simmons, & Yildirim, 2006). A large percentage of the Center's psychiatric services are delivered by telepsychiatry and the Center is exploring opportunities that would allow telepsychiatry services to be delivered directly in schools.

The greatest challenge to the Center's SMH program has been the recruitment and retention of skilled clinicians. Individuals who work in rural communities will sometimes note that a charming aspect to working in these areas is the intimacy and familiarity people have with one another, and how having this awareness of fellow community members can increase a sense of safety and belongingness. Residents in smaller rural communities may emphasize personal themes of resiliency and a "take-care-of-ourselves" mentality. While this can be a strength, the insulated nature of a small community can present a challenge for new service providers. Successful school-based programs often have one or several staff members that can introduce, train, and serve as role models for new service providers. Essentially, the seasoned, well-known staff member provides a "warm hand-off" of a new staff member to the school. This is particularly useful in rural areas since employee turnover is a significant concern. To help recruit skilled providers, TCCMHC promotes its participation in graduate student loan repayment programs. The Center is also able to provide other recruitment incentives—for example, free supervision for staff seeking licensure.

Given the need for school-based services, significant disparities to access to care in rural communities, and demonstrated value of successful school-based services described above, it has become clear that one agency cannot sufficiently address all the behavioral health needs alone. While TCCMHC has effective partnerships with the school districts in its catchment area, several of the districts also partner with other behavioral health providers and a Federally Qualified Health Center (FQHC) to provide SMH. The combined efforts and collaboration of multiple organizations have helped address the behavioral health needs of the rural communities without one entity becoming overextended to try to provide a full system of care. Developing and maintaining mutual trust and vested interest in improving the mental health of the communities prevented these collaborative efforts from being viewed as competitive.

One organization that has had a tremendous impact on improving coordination and collaboration in this part of the state is the Northeastern Rural Health Network (NRHN). Strongly supported by the SC Office of Rural Health, the NRHN is a collaboration of health and human service providers who are dedicated to improving access to quality healthcare in rural communities. Members of the Network are decision makers for their respective organizations and their participation in the Network has greatly contributed to improved working relationships and partnerships. Members of the NRHN have jointly submitted

grant applications that have been funded and resulted in successful healthcare innovations, including school-based programs.

With the technological advances in telehealth, it is an exciting time to be a mental healthcare provider. As mentioned above, one of the challenges of implementing a telepsychiatry program in rural communities is the access to high-speed Internet. Even in rural communities, schools tend to have broadband access so it is a natural fit for rural communities to have telepsychiatry or other telehealth programs delivered in schools. With broadband access and advances in the equipment needed to deliver telepsychiatry, the service is quickly becoming more and more portable.

Another service delivery model that has proven effective in rural communities is integrated physical and behavioral healthcare. The Center has had a successful grant-funded integration program that served adults, which has been sustained and will expand to serve children through a new partnership with an FQHC. This partnership will also add primary healthcare to SMH services through mobile primary care and dental services, with the goal that these services be added for all schools served by the TCCMHC.

Going forward, TCCMHC and its partners will continue to work on expanding school-based mental health services and integrated healthcare. The Center and school districts have a shared goal of having a clinician from the mental health system in every school. Grants and special funding opportunities from endowments and the like will help with the expansion of school-based programs and create positions; however, the challenge will be sustaining those positions with ongoing typical funding streams. In order to make a case for retaining important programs, it is critical to ensure that appropriate data are collected that accurately reflect and document benefits to the local community. Our experience has been that there are plans to collect these data, and in many cases the data are collected, but efforts fall short in analyzing the data and developing reports that are useful to community stakeholders. Clearly, efforts in this area need to be improved. In addition, efforts to document the cost savings of these programs (e.g., reduced psychiatric hospitalizations, restrictive special education placements, juvenile justice involvement) would be of great benefit. There are examples of documenting the cost benefits of SMH (see Slade et al., 2009); these efforts should be escalated for rural SMH programs.

Conclusion

Youth in rural communities face a unique set of challenges, compared to their urban and suburban counterparts. On the whole, children and adolescents face significant rates of mental health ailments (Kessler et al., 2012a, 2012b; Merikangas et al., 2010a, 2010b) and have frighteningly low rates of service utilization (Costello et al., 2014; Merikangas et al., 2010a, 2011). While the prevalence of such conditions may not vary much across the spectrum of rural-suburban-urban, the severity of mental health needs of youth in rural areas is consistently higher (e.g., increased serious problems such as suicidal behavior, substance abuse) than youth in other settings (Fontanella et al., 2015; Hirsch, 2006; Searles et al., 2015; Singh & Siahpush, 2002). This unmet need requires the attention of mental health personnel and policy makers alike, in order to ensure that youth and their families do not continue to experience severe levels of emotional and behavioral distress.

School mental health programs offer an important solution to the gap between needs and effective services for rural youth, as they are regularly the sole source of services for youth who have emotional and/or behavioral needs (Angold et al., 2002; Burns et al., 1995; Costello et al., 2014). These programs are designed to address many of the barriers to treatment that exist in traditional outpatient settings. For many rural families, the price of gas, taking time off of work, insurance issues, and/or stigma of receiving mental health services present real and significant impediments to obtaining quality healthcare. SMH programs bring services to the individual in need, rather than requiring the individual in need to come to

where services are provided, all while seeking to develop a collaborative relationship with the school and the community as a whole.

However, school-based mental health programs in rural areas face many challenges. One of the most important, the one that looms the largest over these endeavors, is that of sustainability. The question of sustainability of SMH programs in rural areas primarily is related to how these programs are funded. Grants offer a chance for many programs to get off the ground and establish services within a community, and allow for service providers and clinicians-in-training to provide healthcare; however, there is no guarantee that funds will be available 5 or 10 years down the road. Direct billing for services allows for licensed practitioners and community agencies to offer their services while being able to keep their doors open; however, with a changing insurance landscape business models may have to adapt in order for agencies to survive. A potential solution therefore is a combination of these practices and a collaboration between entities adept at pursuing funding streams. Partnerships between universities and community agencies can help bolster grant applications, making them more competitive for receiving funding that is set aside for integrative care initiatives. As SMH programs continue to improve and expand, these collaborations between vested parties will help to ensure that financing limitations do not get in the way of the critically important public health agenda of improving mental health promotion and intervention for rural children, youth, and families.

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Legal and Ethical Issues Related to Rural School Mental Health

3

Michael L. Sulkowski

In 2001, President George W. Bush announced the New Freedom Initiative to increase access to psychological and educational services, especially to individuals with unmet needs. Following this initiative, the President's New Freedom Commission on Mental Health was convened. This commission aimed to understand problems with the current US mental health system, as well as to address barriers to service delivery. As a result of the Commission's investigations, it was found that the majority of US citizens living in rural and remote communities experience disparities in their receipt of mental health services. Unfortunately, almost a decade and a half has passed since the origin of the New Freedom Initiative and major disparities still exist in the provision of mental health services in rural communities. Thus, a major impediment to the mental health of the United States relates to the paucity of services available to individuals in rural communities.

According to the U.S. Census Bureau (2001), about 90% of the US landmass is rural and approximately 25% of the US population resides in rural communities. Although these communities are becoming increasingly diverse in terms of race, ethnicity, religion, and country of origin, commonalities still exist in rural communities. One of these commonalities is that the communities are typically spread across a wide area and mental health service providers are highly limited. Despite this problem and the fact that about a quarter of US citizens live in rural communities, the President's New Freedom Commission Report (2003) concluded that: "… rural issues are often misunderstood, minimized, and not considered in forming national mental health policy …. Too often, policies and practices developed for metropolitan areas are erroneously assumed to apply to rural areas" (p. 50).

With a focus on improving rural mental health, this chapter focuses on legal and ethical issues related to rural school mental health. More specifically, this chapter first describes the importance of rural school mental health and then describes barriers that students and providers face in these communities. Following this discussion, ways to overcome these barriers are covered as well as how schools are well positioned to address the mental health needs of students in rural communities. The bulk of the remaining sections of the chapter discuss legal and ethical issues that impact rural school mental health. These include ethical issues that are commonly encountered by rural school mental health professionals such as having to manage multiple role relationships, practicing within one's competence while also attending to diverse student needs, and having to maintain privacy and

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confidentiality in a close-knit community. To help with understanding and navigating complicated laws that impact rural school mental health, relevant laws that purport to expand mental health coverage as well as govern school-based service delivery are reviewed. Lastly, a brief discussion is provided on scenarios in which laws and ethical principles occasionally conflict.

Rural School Mental Health

Compared to adults, children receive far fewer mental health services (Kataoka, Zhang, & Wells, 2002). This is concerning considering that approximately 17% of children in the United States suffer from mental illness (Roberts, Attkisson, & Rosenblatt, 1998; Starr, Campbell, & Herrick, 2002). Furthermore, although children in rural communities do not appear to display higher rates of mental illness compared to their peers in urban or suburban communities (Gamm, Stone, & Pittman, 2008), mental health outcomes may be worse for these youth (Eberhardt et al., 2001; Havens, Young, & Havens, 2010). In rural communities, children are exposed to high rates of parental substance abuse; barriers to academic and occupational success; trauma, neglect, and abuse; and other adverse life events.[1] In addition, these youth face formidable barriers to receiving mental health treatment and other emotional and behavioral supports (Owens, Watabe, & Michael, 2013; Riding-Malon & Werth, 2014).

Some common barriers relate to stigma and cultural issues that reduce treatment-seeking behavior, problems related to financing and being reimbursed for treatment, and structural and organizational issues that impede access to services (Gamm et al., 2008; Hauenstein et al., 2007; Hoyt, Conger, Valde, & Weihs, 1997; Sawyer, Gale, & Lambert, 2006; Sulkowski, Wingfield, Jones, & Coulter, 2011). However, the provision of school-based mental health treatment may overcome some barriers. Research indicates that the provision of school-based mental health services is appreciated by youth who traditionally do not seek services in community settings (Sulkowski & Michael, 2014). Moreover, the provision of mental health services in schools has been shown to reduce disparities in service use among minority students (Cummings, Ponce, & Mays, 2010). Finally, although students are often reluctant to discuss their mental health issues with adults, results from a study by Chandra and Minkovitz (2007) suggest that the stigma associated with seeking metal health services can be reduced through psychoeducation. Thus, in collaboration with educators and administrators, school-based mental health professionals can provide students with information on mental illness and mental health treatment to increase their willingness to seek services.

School-based mental health services also are free for students to receive in US public schools, reducing the burden on parents to pay for services out of pocket or to ensure that they are covered by an insurance company. Of course, providing school-based mental health services is costly to school districts and school-based mental health professionals in terms of time and resources. However, schools can utilize several approaches to providing these services while ensuring that they also are successful with their other goals (e.g., educating all students, meeting annual yearly progress goals). In addition, they can invoke various laws to help cover costs associated with service delivery and ensure that all students have access to a free and appropriate education.

As a third advantage, the delivery of school-based mental health services can reduce structural and organizational barriers to accessing these services. Most youth spend at least 35 h in school each week and schools are located in almost all US communities. In addition, public US schools are legally required to provide supportive services to students with disabilities as well as employ personnel who can help in this regard (Hughes & Minke, 2014; National Association of School Psychologists, 2015). Thus, even in underfunded and overpopulated schools, important people and resources exist that can help with efforts to support student mental health in rural communities.

[1]Adverse life events are risk factors of psychopathology and psychological dysfunction in children and adolescents.

Although more research is needed, results from a recent study by Albright et al. (2013) support the efficacy and utility of a rural school mental health program that was implemented in Appalachia. More specifically, study results indicated that school-based mental health treatment was associated with reliable change for the majority of student participants. Additional research also indicates that the provision of rural mental health services results in improvement in academic outcomes as well as reductions in discipline and attendance problems (Michael et al., 2013). Collectively, results from the previous two studies highlight the potential of rural school mental health programs to improve a range of important student outcomes.

Ethical Dilemmas and Rural School Mental Health

Arguing for the delivery of rural school mental health services is easy. However, actually delivering these services can be a challenge, particularly due to ethical dilemmas that can forestall service delivery. Although ethical dilemmas are ubiquitous to the practice of psychology, rural school mental health professionals commonly encounter a few specific dilemmas, such as managing multiple role relationships, practicing within one's competence while also attempting to meet the diverse mental health needs of students, and maintaining privacy and confidentiality in a close-knit community (Campbell & Gordon, 2003; Helbok, 2003; Helbok, Marinelli, & Walls, 2006; Owens et al., 2013; Starr et al., 2002; Werth, 2012). Below, each dilemma will be illustrated in greater length through the inclusion of a brief vignette, followed by information on strategies for managing the dilemma.

Dr. Reid: Dr. Reid recently received her doctoral degree in school psychology and decided to return to her home community of Prairieville to practice as a school psychologist. She grew up in Prairieville and attended the local high school before graduating and going out of state for college and graduate school. Dr. Reid was happy to return to her home community to help support local students and families. However, Dr. Reid soon found out that it would be a challenge to balance her personal and professional roles in the Prairieville School District. In addition to the nature of her work as a school psychologist, she often knew the students and families at school through her involvement in the local church, through growing up with some of the parents of children who now attended K-12 school, and from her involvement with philanthropic and community service events. Furthermore, she often saw student and families with whom she worked at local stores, farmers markets, and community events, such as Friday-night football games.

Managing multiple-role relationships. The previous vignette illustrates the challenge associated with managing multiple role relationships that often occur while providing mental health services in rural communities. In fact, managing multiple-role relationships often is cited as the most common and difficult ethical dilemma experienced by rural mental health providers (Campbell & Gordon, 2003). It is important to note however that multiple-role relationships are not inherently unethical. Multiple-role relationships that are not expected to lead to any foreseeable harm, degrade the practitioner's sense of objectivity, or potentially lead to exploitation are not problematic (Werth, 2012). Still, it is imperative for school-based mental health professionals to avoid entering into multiple-role relationships if any foreseeable problems could arise with any of the previous issues (APA-EP 3.05; NASP-PPE 111.4.2). Therefore, it is most prudent for Dr. Reid to refer any students or families to other mental health service providers or coordinate their care with others, if such people are accessible, if she is worried that a problem might arise from a multiple-role relationship. However, in the absence of such individuals, she must balance this dilemma with the dilemma of practicing within one's competence while also attempting to meet the diverse mental health needs of students, which brings up the next vignette involving Mr. Jackson.

Mr. Jackson: Mr. Jackson was revered for his ability to connect with students, especially adolescent males who often displayed behavioral

problems. As a counselor, Mr. Jackson was well liked and everyone seemed to know him in the community. He had an extensive history of working in both school and clinical settings, and was credited with implementing effective programs for emotionally disturbed students in several schools before taking a job at Washington High School. Chris, a 16-year-old student, knew Mr. Jackson and liked him a lot. Mr. Jackson coached Chris years before on a flag football team and Chris looked up to him. Recently, however, Chris has started to display symptoms of obsessive-compulsive disorder (OCD) that are becoming increasingly severe and causing Chris to miss many days of school. Mr. Jackson has never directly treated OCD before and he has not been able to find a local provider with experience treating the disorder despite his best efforts. In fact, the nearest OCD specialist is located about 200 miles away in a moderate-sized city. Unfortunately, Chris's family does not have the ability to travel to see the specialist.

Practicing within one's competence: Mr. Jackson is faced with the dilemma of practicing within his competence while also attempting to meet the mental health need of a student in his school. He does not have any specialized training in treating OCD using an evidence-based form of psychotherapy, such as cognitive-behavioral therapy, the "gold standard" psychological treatment for pediatric OCD (Jordan, Reid, Mariaskin, Augusto, & Sulkowski, 2012). However, Mr. Jackson does have training and experience with providing mental health interventions and support to youth with challenging emotional and behavioral problems. In addition, no alternative providers with specialized OCD experience could be located to help Chris. Thus, Mr. Jackson must balance the benefit associated with stretching his own skill set to help Chris against problems that could result from practicing outside his realm of competence. Owens et al. (2013) report that rural health service providers often have to determine whether the limited services they can provide are better than receiving no service at all or the services that even less experienced and specialized providers can offer. This is not an easy call and, unfortunately, clear guidelines do not exist to help in this regard. However, Mr. Jackson may attempt to resolve this dilemma by clarifying the limits of his training and competence and then seeking consultation from a person with specialized expertise in treating OCD. This would allow Chris to receive treatment from a counselor with whom he has rapport.

Mrs. Johnson: Mrs. Johnson grew up and attended school in Peabody County. She has also been working as a social worker in the same county for the past 30 years. She has watched the community grow and change throughout her lifetime. Moreover, she has witnessed several generations attend school, graduate, and then enroll school-aged students of the own. Therefore, Mrs. Johnson knows many members of the families from which her students originate. Because of how well she is known in the community as a mental health provider, merely being seen going into her office implies that someone is receiving psychotherapy or a related service.

Despite Mrs. Johnson being regarded as an excellent social worker and therapist, a stigma associated with seeing her still exists. Many community members in Peabody County, a primary agrarian community, pride themselves on being self-reliant and able to take care of themselves by living off the land. Therefore, some parents object to having their children seen by Mrs. Johnson because they will be seen waiting for her by other students and parents. In addition, as a social worker, Mrs. Johnson occasionally has to do home visits to check up on students and families. Colloquially, members of the community have referred to these events as receiving a "Johnson visit"—a term that has come to suggest that a family is afflicted by conflict, abuse, or neglect.

Maintaining confidentiality and privacy: Maintaining confidentiality and privacy can be a challenge for rural mental health providers who do not have the advantage of a shroud of anonymity that often exists in more densely populated communities (Helbok, 2003; Starr et al., 2002). Because Mrs. Johnson and the nature of the services she provides are well

known in the community, protecting the identities of her clients (or potential clients) is a formidable challenge. To help in this regard, Owens et al. (2013) suggest that mental health services can be embedded in multipurpose institutions, such as schools and community health centers. Moreover, embedding mental health services in schools may confer unique advantages. For example, data from one study found that almost a quarter (22%) of parents reported that they would prefer for their child to receive school-based mental health services over similar services in the community because "attending school meetings was less embarrassing than clinic meetings" (Owens, Murphy, Richardson, Girio, & Himawan, 2008, p. 442). Thus, in addition to targeting barriers to rural mental health treatment such as stigma directly, providers can also reduce barriers to accessing mental health services by modifying the environments in which these services are provided. For more information on ethical dilemmas related to rural school mental health, see Helbok (2003); Owens et al. (2013); Roberts, Battaglia, and Epstein (1999); Warren et al. (2014); and Werth (2012).

Laws That Impact Rural School Mental Health

The previous section of this chapter covered ethical dilemmas that are commonly experienced by practitioners of rural school mental health. Although these dilemmas are not specific to the practice of rural school mental health, it behooves rural mental health professionals to anticipate and plan for them, as they are frequently encountered in these settings. The next and concluding section of this chapter differs from the former in that it focuses on laws that impact rural school mental health. Similar to the previous section on common ethical dilemmas, priority has been placed on laws that most directly apply to rural school mental health. For the interested reader, a more exhaustive text on the application of law in educational settings is available by Jacob, Decker, and Hartshorne (2010).

Laws That Aim to Expand Access and Coverage

Early legislation: No single law encompasses all facets of rural school mental health. Instead, a number of different laws influence the delivery of mental health services in schools in rural communities. In addition, the combined influence of various laws has gradually increased access to mental health services over time. At first, the reach of many laws was limited. However, recent legislation displays promise to greatly expand rural school mental health. As an early initiative, aspects of the Omnibus Budget Reconciliation Act (OBRA; PL 100–203) of 1987 increased Medicare and Medicaid reimbursement to cover services provided by licensed psychologists and licensed clinical social workers who worked in rural community health centers (Lambert & Hartley, 2014). However, despite this act, access to mental health services in rural communities—and in the United States more generally—was limited, and millions of individuals have lacked access to Medicare, Medicaid, and private insurance plans.

The Mental Health Parity Act: The Mental Health Parity Act (MHPA) was signed into law in 1996 to help address disparities in coverage for mental health problems. This act requires that annual or lifetime dollar limits on mental health benefits be no lower than any such dollar limits for health/medical benefits offered by a health insurance provider or group health plan. Unfortunately, however, insurance providers found ways to circumvent the patient protections that were intended in the act by imposing caps on the number and types of mental health/psychiatric patient visits, as well as by increasing copays, cost sharing, and other mechanisms (Kjorstad, 2003). Thus, similar to the OBRA, the MHPA) had little to no major impact on the delivery or receipt of mental health services, especially in rural communities that had high numbers of uninsured individuals and families (Hartley, Quam, & Lurie, 1994).

The Mental Health Parity and Addiction Equity Act: In response to problems with the previous acts, the Mental Health Parity and

Addiction Equity Act (MHPAEA) was enacted in October of 2008. The MHPAEA aimed to reduce loopholes in the MHPA by requiring health insurance providers to guarantee that financial requirements on mental health or substance-use disorder services were not more restrictive than the insurer's requirements and restrictions for health or medical services. These services and benefits included copays, deductibles, out-of-pocket maximums, and number of visits a patient could have with a provider or an inpatient psychiatric or mental health setting. It is important to note that the MHPAEA only applies to private insurance plans sold to employers with 50 or more employees and that the full impact of the MHPAEA remains to be understood, especially for the provision of rural mental health. However, a recent 9-year investigation found that the implementation of the MHPAEA will not likely have a large impact on the growth rate of employers' healthcare expenditures (Mark, Vandivort-Warren, & Miller, 2014), which is important because many worried that the MHPAEA would place an undue burden on businesses and providers.

The Patient Protection and Affordable Care Act: The Patient Protection and Affordable Care Act (ACA; PL 111–148) was passed in 2010 to expand access to healthcare for US citizens. With regard to rural school mental health, the ACA mandates the expansion of the State Children's Health Insurance Program (SCHIP) and it provides incentives to states that agree to expand eligibility to Medicaid. This is important due to the fact that approximately 10.5 million students were uninsured prior to the passing of the ACA, and the great majority of these students lacked access to mental health services (Medical Expenditure Survey Panel, 2010). Although some school districts did bill Medicaid prior to the passing of ACA, this act opened the door for schools to more easily tap into this source of funding to cover mental health services. In addition, the ACA has also authorized $200 million to create new sites for school-based mental health clinics, as well as to expand the operating capacity of existing clinics (Vaillancourt & Kelly, 2014). Thus, in concert, the combined impact of the ACA and Medicaid is the most comprehensive and accessible source of health care for US students, particularly those from low-income and generally disenfranchised families (Angeles, Tierney, & Osher, 2006; Vaillancourt & Kelly, 2014).

Under the ACA, schools have three strategies for maximizing Medicaid reimbursements. These include fee-for-service claiming, administrative claiming, and procuring leveraged funds (Angeles et al., 2006). Fee-for-service claiming involves being directly reimbursed for services that are provided (e.g., therapy, counseling, mental health consultation); billing for these services can reduce expenses that may come from other money sources, thus saving schools money that can be invested in other ventures. Administrative claiming involves being reimbursed for work related to the provision of services such as referring to community practitioners, consulting with these providers, and case management. In general, being reimbursed for administrative claiming requires less documentation and paperwork.

Lastly, within the context of school mental health, procuring leveraged funds involves establishing a collaborative agreement between a school and a health service provider. On their own, neither organization is positioned to be reimbursed for providing mental health services under the ACA and Medicaid. Together, however, collaborations between schools and mental health service providers can leverage their working relationships to provide needed resources to underserved populations, such as students in rural communities. The East Feliciana School district, located about an hour north of Baton Rouge in rural Louisiana, is an example of a rural school district that has developed such a partnership. The school district partnered with RKM-Primary Care Clinic (a federally qualified health service provider) to create two school-based health clinics in the district. The clinics are located on school grounds and provide a range of health and mental health services to students and families.

Although the passing of the ACA and its gradual implementation is a good harbinger for the future of rural mental health, significant barriers still exist to meeting the needs of students who can benefit from the provision of mental health services in these communities. Some of these include

the following: considerable variability across states in how the ACA and Medicaid is implemented, the presence of restrictions associated with increasing access to Medicaid and SCHIP in some states, differences in qualifications associated with being classified as a "health provider," and limitations in funding in ACA for hiring new mental health personnel, even though funds exist for creating and adapting existing mental health facilities (Vaillancourt & Kelly, 2014).

Expanding on the former, although the federal government sets broad guidelines, considerable variability exists in how states interpret and implement practices related to these initiatives. In this regard, latitude exists across states in who is able to receive mental health coverage; the type, amount, and scope of covered services; the types of providers that are deemed eligible as "health service providers"; and how much providers receive for their services (Angeles et al., 2006). For example, a student that is eligible to receive a range of mental health services in rural Arizona might not be eligible to receive similar services in rural South Dakota and vice versa.

Restrictions with increasing access to Medicaid and SCHIP associated with ACA also vary across states. States that have chosen not to participate with federal initiatives to expand their insurance coverage to residents must maintain their current level of Medicaid funding, yet they do not have room to grow in this regard. Currently, these states include Florida, Georgia, South Carolina, North Carolina, Virginia, Georgia, Mississippi, Alabama, Louisiana, Texas, Oklahoma, Kansas, Missouri, Nebraska, South Dakota, Idaho, Wisconsin, and Maine. Alternatively, states that are expanding coverage with Medicaid under the ACA include New York, Vermont, Massachusetts, Connecticut, Rhode Island, New Jersey, Delaware, Maryland, Ohio, West Virginia, Kentucky, Illinois, Minnesota, North Dakota, Colorado, New Mexico, Arizona, Nevada, California, Oregon, Washington, Alaska, and Hawaii. All other states fall in the gray area between these positions, which includes trying to expand Medicare coverage with an alternative plan or considering expansion of how the state delineates coverage of mental healthcare.

Laws That Govern School-Based Service Delivery

As the ACA continues to impact access to mental health services in and outside of schools, many previously disenfranchised youth may soon have access to these needed services. However, to date, the majority of youth receive mental health services in schools through provisions in older laws. In fact, previous research suggests that schools have been the de facto provider of mental health services for approximately 70–80% of all school-aged youth (Farmer, Burns, Phillips, Angold, & Costello, 2003). Thus, for the foreseeable future, existing laws that govern school-based service delivery will have the greatest impact on rural school mental health. These laws include the Individuals with Disabilities Education Improvement Act (IDEIA 2004; Individuals with Disabilities Education Improvement Act, P.L. 101–476) and Section 504 of the Rehabilitation Act (Section 504; P.L. 93–112, amended P.L. 93–516). In addition, multitiered systems of support (MTSS), a multitiered intervention service-delivery framework, also can influence the provision of assessment and intervention services (Sulkowski & Michael, 2014). Each of these laws and service-delivery frameworks are discussed below as they impact rural school mental health.

The IDEIA: The IDEIA is a federal special education law that determines how states and federally funded public agencies provide early intervention, special education, and related services to children with disabilities (or suspected disabilities). The Office of Special Education and Rehabilitative Services (OSERS, 2006) of the Federal Department of Education issued the Federal Register, which lists the 13 disability categories included in IDEIA. In addition, the Federal Register delineates eligibility criteria under these respective categories. However, because state departments of education are tasked with actually implementing IDEIA, they have some latitude in the terminology used to describe the aforementioned IDEIA categories (U.S. Department of Education, § 300.8 (4)(i), p. 46756).

In particular, many states differ in how they describe students who could classify as having a disability because of severe emotional and behavioral problems. For example, Emotional Disturbance (ED) in the Federal Register is called Emotional/Behavioral Disabilities (E/BD) by the Florida State Board of Education (Florida Department of Education, 2013, p. 270). In addition, states also vary in aspects of classifications that need to be met to receive services. For example, some states require a note from a physician for a student to be eligible to receive services under an Other Health Impaired [OHI] classification (Sulkowski & Joyce-Beaulieu, 2014). Therefore, in addition to being aware of IDEIA as issued by the Federal Register, it is critically important to know specific aspects of IDEIA that are dictated by state departments of education.

Students receive services under IDEIA on an Individualized Educational Plan (IEP), which is collaboratively designed by members of a multidisciplinary team and legal guardians. Individualized Education Plans list specific interventions, accommodations, and supports that the school will directly provide and/or pay for to help a student meet specific educational goals. As long as a student qualifies as having a disability under IDEIA, the IEP is mandated to be regularly maintained and updated until the student graduates high school or reaches his or her 21st birthday. In addition to listing services that students will receive, IEPs also state where services will be provided (e.g., in a general education class, in a special education classroom, while working one on one with a professional, at a special school).

Although IDEIA aims to level the playing field and allow students with disabilities to have access to a free and appropriate education, the law can also be invoked to provide mental health services to students such as psychological testing and counseling (Sulkowski & Michael, 2014). This would be the case when a significant mental health problem is serving as a formidable barrier to learning and impairing a student's educational performance. For example, a student with major depressive disorder (MDD) can be classified as having ED and then he or she can be provided with cognitive-behavioral therapy (CBT), an evidence-based treatment for childhood depression that can be delivered in rural school settings (Albright et al., 2013; Joyce-Beaulieu & Sulkowski, 2015; Michael et al., 2013). Similarly, following expert practice guidelines by the American Academy of Pediatrics, a student with attention-deficit/hyperactivity disorder (AD/HD) could be classified as OHI and provided with school classroom-based behavioral supports and stimulant medication (Subcommittee on Attention-Deficit/Hyperactivity Disorder, Steering Committee on Quality Improvement and Management, 2011).

Schools that are set up to bill Medicaid for providing mental health services or have an agreement to bill Medicaid with a health service agency have greater flexibility to provide students with mental health services under both IDEIA and Medicaid (Angeles et al., 2006). Mental health-related services that are included in a student's IEP can be covered by Medicaid as long as they are included in the state's list of approved services (Vaillancourt & Kelly, 2014). Therefore, through compensation for providing services covered under Medicaid, schools can reserve IDEIA-related funds for supporting other students. However, it is important to note that the types of mental health services covered under Medicaid vary considerably across states. For example, according to a report by Angeles et al. (2006), Medicaid in Arkansas will cover individual, group, and family therapy; day treatment, after-school, intensive homebound, and therapeutic nursery/preschool services; and therapeutic foster care, independent living skill training, and targeted case management. However, in Colorado, after-school, intensive homebound, day treatment, and therapeutic nursery/preschool services are not covered, while family support/wraparound care is. Thus, individuals involved with the provision of school-based mental health services must check with their state's Medicaid consumer and provider guidelines to know exactly which services are covered.

Section 504 of the Rehabilitation Act: Section 504 of the 1973 Rehabilitation Act (Section 504) was enacted to guarantee various rights to individuals with disabilities. The law prohibits the discrimination of people with disabilities who are enrolled in programs that receive federal financial assistance. According to Section 504, "Individuals with Disabilities" are defined as: "Persons with a physical or mental impairment which substantially limits one or more major life activities." Major life activities involve "caring for one's self, walking, seeing, hearing, speaking, breathing, working, performing manual tasks, and learning" (Section 504 of the Rehabilitation Act of 1973, as amended 29 U.S.C. § 794, 34 C.F.R. 104.3(j)(2)(i)).

In school settings, Section 504 aims to promote equal educational opportunities and decrease discrimination to students by requiring schools to provide reasonable accommodations to individuals with disabilities (e.g., extra time on tests, access to assistive technology, use of a note taker). Thus, temporary or chronic problems can be addressed by accommodations under Section 504; no IDEIA-recognized disability classification is needed for their provision. In addition, accommodations under Section 504, which are delineated in an Individualized Accommodation Plan (IAP), can be easily added, modified, or removed as needed.

Unfortunately, schools must pay all expenses associated with providing Section 504 accommodations, as no direct federal or state funding support currently is available to support these services. Therefore, underfunded and under-resourced schools may be hesitant to provide students with Section 504-related accommodations (Sulkowski, Joyce, & Storch, 2012). This issue may be particularly problematic in rural communities where schools often lack full-time and within-building health service providers and mental health professionals. However, the U.S. Department of Health and Human Services (DHHS) lists "Medicaid and Medicare Providers" as "Covered Entities" or covered providers who may receive funding for providing Section 504 services. Therefore, similar to IDEIA, schools can seek coverage for many of the services they provide students under Section 504.

Multitiered Mental Health Service Delivery

Multitiered systems of support (MTSS), a multitiered school-based service delivery framework, is being applied to address students displaying various academic, behavioral, and mental health needs (Sulkowski & Michael, 2014; Sulkowski et al., 2011; Wheeler & Mayton, 2010). The term MTSS is omnibus and it often subsumes other conceptually related service-delivery frameworks such as response-to-intervention (RtI), positive behavior intervention support (PBIS), and continuous improvement model (CIM) that appear in state bulletins that discuss educational service delivery.

Currently, no federal law requires the use of MTSS; however, state bulletins have been incorporating MTSS-related language to allow for more flexible intervention service delivery. For example, in Louisiana, the following criterion must be considered for ED classification: "Behavioral patterns, consistent with the definition, exist after behavior intervention and/or counseling and educational assistance implemented through the RTI process which includes documented research-based interventions targeting specific behaviors of concern" (Part C.L. Bulletin 1508–Pupil Appraisal Handbook, 2008). Thus, in addition to meeting the Federal Register's criteria for ED, school practitioners are expected to attempt an evidence-based intervention, determine whether the intervention significantly modified the student's problematic behavior, and then document whether or not behavioral change occurred prior to classifying a student with ED.

Core MTSS components include the use of universal screening, evidence-based early intervention service delivery, collaborative problem solving, progress monitoring, and intervention scaffolding (National Association of State Directors of Special Education, 2008; Sulkowski et al., 2012). The majority of MTSS frameworks describe service delivery across three tiers of varying intensity: Tier I (universal), Tier II (targeted), and Tier III (intensive). Tier I service delivery generally involves research-based and developmentally appropriate

primary prevention or early intervention services to all students. For example, a Tier I approach for supporting students' mental health could be the application of a universal, evidence-based bullying prevention program such as KiVA (Salmivalli, Kärnä, & Poskiparta, 2011).

Tier II intervention services are provided to students who display problems that cannot be adequately addressed through the provision of Tier I services. Tier II services are targeted in that they are delivered to at-risk students who display unaddressed needs. In school settings, Tier II services often are delivered in a small group format or involve working directly with a school-based mental health professional. For example, a school psychologist could form social skill groups to help students with autism spectrum disorder (ASD) symptoms interact more effectively with their peers at school (Sulkowski et al., 2011, 2012).

Lastly, Tier III services intensively target problems displayed by students who do not effectively respond to Tier I and II interventions. These interventions often are administered individually to students who display symptoms or problems that significantly impair their educational performance (Sulkowski & Michael, 2014). Tier III services can be delivered within general education and special education settings and they can be withdrawn as soon as a student displays adequate progress, which actually may prevent the provision of special education services. However, consistent with IDEIA, if a student does not respond adequately to multitiered interventions, or whose level of need far exceeds what can be provided in a general education setting, he or she can be referred for an evaluation to determine his or her eligibility for special education. Essentially, students' responses to MTSS can help with efforts to determine if they might benefit from special education or more intensive systems of support.

When Law and Ethics Conflict

Legal and ethical practice guidelines usually overlap. In other words, the law and ethical codes re usually highly consistent (e.g., American Psychological Association, 2010; National Asssociation of School Psychologists, 2010). However, in cases in which a perceived discrepancy exists between law and ethics, mental health practitioners are expected to follow the law and generally are exonerated from ethical sanctions from doing so. However, the opposite is not true. Thus, laws tend to trump ethics as far as assigning culpability to a practitioner.

As previously discussed, rural school mental health professionals are often confronted with ethical dilemmas. Additionally, like all mental health professionals, they also occasionally have to navigate dilemmas that may have forensic or legal ramifications. When practicing rural school mental health, practitioners may even encounter dilemmas in which a conflict appears to exist between laws and ethics. Although not specific to rural mental health, a seminal study demonstrates this point. In reference to the question, "In the most serious, significant, or agonizing instance, if any, what law or formal ethical principle have you broken intentionally in light of a client's welfare or other deeper value?", Pope and Bajt (1988) found that the majority of expert psychologists[2] (57%) had acknowledged encountering such instances. Further, of these 34 instances, the following were reported by more than one participant: 7 (21%) involved refusing to report child abuse; 7 (21%) involved illegally divulging confidential information; 3 (9%) involved engaging in sexual activity with a client; 2 (6%) involved being engaged in an inappropriate dual relationship(s); and 2 (6%) involved refusing to make legally mandated warnings about dangerous clients. It is worth noting that 48% involve the issue of client/patient confidentiality at least in some capacity, which can be challenging in tight-knit communities. In addition, risk associated with encountering all of the aforementioned dilemmas increases when mental health professionals practice in isolation, which is an unfortunate reality for many rural mental health

[2]According to Pope and Bajt (1988), these included the following: 100 senior psychologists who were peer acknowledged to be knowledgeable and scrupulous about their professional accountability; 60 members (current or former) of state ethics committees (50 of whom had served as chairs); 10 current or former members of the APA Ethics Committee; 10 authors of textbooks focusing on legal or ethical aspects of psychology; and 20 diplomates of the American Board of Professional Psychology (ABPP).

professionals (Campbell & Gordon, 2003; Helbok, 2003; Helbok et al., 2006; Owens et al., 2013; Starr et al., 2002; Werth, 2012).

Conclusion

As illustrated in this chapter, a number of laws and ethical principles influence the provision of mental health services in rural school communities. Although the goal of reducing all disparities in health services in rural communities does not appear to be a goal that is achievable in the near future, school-based mental health professionals can make big strides to support students whose mental health needs would otherwise be neglected. In particular, ethically minded school-based mental health professionals who are familiar with laws that aim to expand mental health coverage, as well as govern school-based service delivery, can play a large role in expanding mental health coverage in rural communities.

Consistent with expansions in Medicaid under the ACA that have occurred and likely will continue to occur in the future in many states, many students in rural communities now have access to mental health services that previously were unavailable. In addition, with expansions in school-based service-delivery frameworks that aim to support all students, schools now have an unprecedented ability to embed mental health supports in their infrastructure. To do this, adroit mental health professionals are needed in all schools, but particularly in rural schools where they must skillfully navigate legal and ethical dilemmas.

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General and Specific Competencies for School Mental Health in Rural Settings

4

Dawn Anderson-Butcher, Jill Hoffman, David M. Rochman, and Michael Fuller

There is a growing body of evidence that many youth entering the education system lack the social and behavioral skills necessary for academic achievement (Jones & Bouffard, 2012). This is an alarming trend considering that youth spend a substantial amount of their time in school and that social and emotional growth is closely linked with academic success (Jones, Brown, & Aber, 2011). Additionally, almost 400,000 youth are classified as having an emotional disturbance under the Individuals with Disabilities Act (U.S. Department of Education, NCES, 2013b), and one out of five students lack age-appropriate social skills (Blumberg, Carle, O'Connor, Moore, & Lippman, 2008). In rural settings, these issues are often exacerbated due to barriers that prevent access to mental health care. These barriers often include a lack of available services, inaccessible services due to geography or finances, and stigmatizing views on receiving care (DeLeon, Wakefield, & Hagglund, 2003). With 21% of children in the United States living in rural areas (Pullman, VanHooser, Hoffman, & Heflinger, 2010), as well as additional risks related to poverty, it is important to have mental health services available in rural schools. The quality and value of school mental health (SMH) approaches, however, depend on service delivery by well-trained and prepared SMH professionals working within the system.

Competencies that need to be mastered by SMH professionals are discussed in this chapter. Some of the knowledge and skills are gained in preservice education programs, while others are honed through professional development programs offered in the field. The goals of these programs are to enhance the way in which services are implemented in school settings, ultimately contributing to improved academic and mental health outcomes. Here we briefly overview SMH and provide support for its value, especially in rural settings. We then explore competencies needed for general as well as rural SMH professionals. The chapter concludes with suggestions for supporting SMH in rural schools.

School Mental Health in Rural Settings

SMH is designed to promote student engagement and well-being, as well as address the barriers to learning that youth bring with them to school.

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SMH involves programs and strategies across three levels of intervention (Anderson-Butcher, Mellin, Iachini, & Ball, 2013). These levels of intervention are modeled off of the Institute of Medicine's framework of preventive interventions that include universal, selective, and indicated preventive interventions (O'Connell, Boat, & Warner, 2009). Universal SMH interventions are designed to prevent the onset of emotional and behavioral problems, as well as promote student engagement and general health and well-being. Selective interventions focus on youth who are at risk and present early signs of academic, behavioral, social, or emotional needs. These interventions focus on young people who might benefit from early interventions to address escalating needs. Indicated interventions involve extensive services and supports for identified youth. These indicated programs and services target youth with compacted needs and/or disabilities (i.e., those who need extensive wraparound supports and more intensive interventions).

SMH interventions may be especially important in rural settings, as youth living in rural settings may face additional risk factors that impact their mental health. These factors include a lack of access and resources related to mental health services, as well as an increased level of stigma associated with accessing care (Lee, Lohmeier, Niileksela, & Oeth, 2009; Montiero-Leitner, Asner-Self, Milde, Leitner, & Skelton, 2006; Owens, Murphy, Richerson, Girio, & Himawan, 2008). As such, the addition of SMH in rural schools may have increased importance for youth well-being. Given this increased importance, professionals involved in SMH must be well versed in core competencies related to its practice.

Competencies for School Mental Health

The overall contributions of SMH to school and student outcomes are dependent upon the quality of professionals delivering interventions, programs, services, and supports. Professionals working in SMH come from a variety of disciplines, each with its own knowledge, skills, and values. Disciplines and subdisciplines involved in SMH are plentiful, and include key ones such as education, social work, psychology, nursing, and counseling. Professionals from these areas include principals, educators, school counselors, school psychologists, school social workers, school nurses, and others. Each professional may focus their area of practice in one key SMH area (e.g., educators focused on universal strategies such as positive behavioral supports in classrooms; school social workers focused on school-family-community partnerships, linkage and coordination). Although each profession has its own focus, all school professionals, regardless of discipline, must be knowledgeable and skilled in a core set of SMH competencies. This is particularly critical in rural areas, where professionals from all disciplines are in short supply. As such, school mental health professionals in rural areas often play many roles that may fall outside the scope of their particular backgrounds, emphasizing the need for a general set of competencies common to all SMH professionals. This section examines general SMH competencies that all mental health professionals should know and details additional areas of knowledge and skills for those working in rural settings.

General Values and Competencies for School Mental Health

Some of the seminal work on SMH competencies was articulated by Weston, Anderson-Butcher, and Burke (2008). Five core values were identified which provided the foundation for basic work in SMH. These authors suggest that SMH professionals must be dedicated to supporting the well-being of the "whole child," including the academic, social, emotional, physical, spiritual, and overall well-being. Professionals also must value and respect the diversity of the children, families, and professionals with whom they work. Third, Weston et al. (2008) suggest that SMH professionals should value the importance of using a strength-based approach that is driven by data. Fourth, they suggest that professionals also must value and be committed to collaborating with stakeholders within the school and the

larger community. They must appreciate the contributions of others to student learning, healthy development, and overall school success. Finally, it is suggested that SMH professionals must value and support their own development and well-being, both personally and professionally. Value placed on self-care will prevent burnout and promote better service delivery across the system. These SMH values support the foundation on which SMH competencies are built. In addition to these general dispositions, SMH professionals also must be knowledgeable and skilled in several competencies specific to SMH.

General School Mental Health Competencies

Ball, Anderson-Butcher, Mellin, and Green (2010) conducted an extensive review of discipline-specific competencies in order to develop a set of SMH competencies that extend across disciplines. Competencies within the fields of general education, special education, school social work, psychology, and school health, as well as competencies from interprofessional organizations (i.e., the National Assembly on School-Based Health Care), were reviewed. From this process, six competencies were identified, many of which have been described as important cross-disciplinary competencies in previous research (Bronstein, 2003; Weist, Proescher, Prodente, Ambrose, & Waxman, 2001; Weston et al., 2008). These competencies provide guidance related to the areas of knowledge and specific skillsets needed among SMH professionals. Please note, as well, that many of the core values identified by Weston et al. (2008) also are represented within these broad competencies.

Competencies identified by Ball et al. (2010) included key policies and laws, collaboration, provision of learning supports, data-driven decision making, personal and professional growth and well-being, and cultural competence. The six core competencies along with the knowledge and skills associated with each competency are described in detail below. An overview of these competencies is also presented in Table 4.1.

Key policies and laws. Schools are complex systems that are guided by policies and laws at the federal, state, and local levels. Knowledge of the specific policies and laws that impact SMH practice (i.e., IDEIA; No Child Left Behind; FERPA; Pupil Services Act, HIPPA) is essential for SMH professionals. An understanding of these policies allows SMH professionals to advocate on behalf of students and families. Furthermore, knowledge of discipline-specific standards and ethics is needed. Not only must professionals be knowledgeable, but they must also also be able to convey this knowledge in a manner that is understandable to families. Advocating for policies and laws that support students and families is also an important skill within this competency. Finally, SMH professionals should understand the impact of the school's political context on their work with youth (Ball et al., 2010). This is especially critical given today's focus on high-stakes testing and school accountabilities. As such, understanding how school report cards are generated, in relation to both criterion-referenced tests and those examining value-added, is vital. SMH professionals can align their work on non-academic barriers to learning to the various accountability mechanisms present in schools.

Collaboration. Successful collaboration among professionals, families, and systems also is critical for student success and well-being (Michael, Bernstein, Owens, Albright, & Anderson-Butcher, 2013). Collaboration encompasses interdisciplinary collaboration and cross-system collaboration. Interdisciplinary collaboration focuses on communication and relationship building. SMH professionals should be able to communicate effectively and build positive relationships with families and other professionals. SMH professionals are engaged in this type of collaboration as they work together on service coordination and/or wraparound teams, as well as when they work with other professionals who might be involved with families (i.e., child welfare workers, probation officers). Cross-system collaboration involves working not only with families, but also with all of the systems that are relevant to students' success (Ball et al., 2010).

Table 4.1 Resources for developing SMH competencies

Center for Mental Health in Schools: Practitioner Toolbox, Resources & Networks http://smhp.psych.ucla.edu/netexch.htm This website provides many resources for SMH professionals including training materials, guidebooks, and opportunities to connect with other professionals.
Center for Parent Information and Resources www.parentcenterhub.org/resources This website provides numerous resources on topics including policies/laws and general SMH. Resources are also available in Spanish.
Center for Public Education www.centerforpubliceducation.org/Main-Menu/Policies This website provides information about policies relevant to education.
Concept to Classroom: Making Family and Community Connections www.thirteen.org/edonline/concept2class/familycommunity/index.html This online workshop addresses building partnerships between families, the school, and the community.
Journal of Research in Rural Education http://jrre.psu.edu/ This open-access, peer-reviewed journal publishes articles related to rural education.
PBS LearningMedia www.pbslearningmedia.org This site allows users to search for professional development videos on various topics that are covered in the SMH competencies.
PBS TeacherLine www.pbs.org/teacherline This website provides online and in-person workshops on a variety of SMH-related topics.
Positive Behavioral Interventions and Supports: OSEP Technical Assistance Center www.pbis.org This website provides presentations, text documents, videos, and in-person seminars related to PBIS.
Rural Assistance Center: Rural Mental Health www.raconline.org/topics/mental-health This website provides links to organizations and resources dedicated to mental health in rural areas.
School, Family, and Community Partnerships: Your Handbook for Action (2008) By Joyce Epstein et al. This book provides guidance on building partnerships between the community, school, and families. The book can be purchased from Amazon.
School Mental Health www.schoolmentalhealth.org This website provides free resources, trainings, and presentations on a variety of topics related to SMH including behavior management, cultural competence, professional growth, and personal wellness.

When collaboration is successful, decision making and responsibilities are shared across professionals and team members (Anderson-Butcher & Ashton, 2004; Bronstein, 2003). Additionally, successful SMH teams and systems depend on each other to accomplish their goals (Weist, Ambrose, & Lewis, 2006) and view their roles on the team as fluid and flexible (Mellin et al., 2010). Furthermore, these professionals show respect for the individuals with whom they work (Weist et al., 2001). Finally, collaborative efforts are most successful when the individuals involved purposefully reflect on the process of collaboration, as their awareness and appreciation of the contributions of others promote collective synergy (Mellin et al., 2010). For more information on this particular competency, see Mellin and colleagues' Index of Interprofessional Team Collaboration for Expanded School Mental Health (IITC-ESMH). SMH professionals may use this tool to identify strengths and weaknesses of SMH teams and collaborations.

Provision of learning supports. The third SMH competency professionals must be familiar with is related to the provision of evidence-based

supports that promote academic, behavioral, and social-emotional learning. Professionals should be able to carry out these supports using all levels of the three-tiered model of SMH service provision, and integrating the work of SMH with the broader positive behavioral intervention supports framework. Professionals must be able to recognize the signs and symptoms that indicate atypical development and be knowledgeable of a wide range of evidence-based strategies that support students in need. Participation in treatment planning for these students is a key component of this competency. Professionals must also have knowledge of evidence-based strategies that support the learning of at-risk students. Finally, professionals should be knowledgeable of evidence-based strategies that universally support students (Ball et al., 2010). SMH competencies in this area are necessary for the early identification of risk factors, learning challenges, and other nonacademic barriers to learning. Leveraging different parts of the continuum, both services and supports internal to the school and external health and social services, is essential for ensuring that students and their families have the appropriate level of intervention that is least restrictive and most inclusive (Anderson-Butcher et al., 2008).

Data-driven decision making. The use of data greatly enhances SMH professionals' decision-making processes. Professionals need to be able to collect data through screenings, assessments, and functional behavior analyses. They also need skills related to data analysis and interpretation, so that they may ultimately use data to drive decision-making processes. This might involve using data to guide the creation of IEP and 504 plans. It also may involve skills in using data to guide expanded school improvement. Certainly, competencies in data-driven decision making also have implications for evaluation and quality improvement, as data may be used at the individual, group, classroom, school, and community levels to document progress. Essentially, the SMH interventions and learning supports used in schools should be based upon quality data collected by SMH professionals (Ball et al., 2010). Data-driven decision making is important because it allows plans and interventions to be aligned specifically to the needs of the individual student, group of students, school population, families, and/or community needs. For more details on data-driven decision making Cultural competence see the Evans chapter on evaluation in this book.

Cultural competence. SMH professionals work with students, families, and professionals from diverse backgrounds. As such, SMH professionals must be able to work effectively with diverse groups of individuals and be knowledgeable of the role that culture plays in mental health and education. In rural settings this is often seen through work with Appalachian populations and students in migrant worker families. Each of these groups of students has unique cultural characteristics that must be addressed by SMH professionals. The cultural competence competency stresses the importance of evaluating one's personal biases and assumptions. In addition, SMH professionals must be knowledgeable and skilled in strategies to promote tolerance and respect (Ball et al., 2010). Cultural competence is important because it is linked to improved health and mental health outcomes, as well as reduced costs associated with health-care delivery (Goode, Dunne, & Bronheim, 2006).

Personal-professional growth and well-being. The final core SMH competency relates to personal and professional growth and well-being. Working within schools, while rewarding, can also be a challenging process. The SMH professionals who are best able to serve youth and their families are those who take time to support their own growth and development, both professionally and personally. SMH professionals should foster their professional growth through continuing education opportunities that align with these SMH competencies. They should also help to foster the professional growth of others by providing trainings and supervision within their areas of expertise. Knowledge and reflection on one's own personal and professional biases is a key component of this competency. Finally, SMH professionals must be able to seek guidance and support when needed (Ball et al., 2010).

Seeking guidance and support can be difficult in rural settings because of professional isolation. Strategies to overcome these challenges may include partnering with health-care organizations or universities that provide mental health-related technical assistance to school districts. For example, in North Carolina, rural schools have partnered with universities to provide on-site workshops. These workshops provide not only opportunities to learn more about a specific topic, but also an opportunity to informally connect and support other SMH professionals. Additionally, the Center for Rural Health Innovation provides consultation services on providing telemedicine services, including mental health services, to rural areas. Within rural schools themselves, SMH professionals should work towards ensuring that trainings are seen as a priority by administrators, and also ensuring that time is set aside for weekly staff meetings where SMH-related issues can be discussed. Ultimately, a commitment to professional growth and adult learning may prevent burnout and stress, but also ensures that professionals continue to be knowledgeable and skilled in new emergent, evidence-based practices.

Multiple opportunities exist for developing the general SMH competencies detailed above. Table 4.1 presents a list of resources that may be useful to rural SMH professionals. Most resources provided in the table are free of charge.

Other Competencies Needed for Rural School Mental Health

In addition to these six general SMH competencies, professionals across disciplines working in SMH need specific competencies related to rural settings in order to address the challenges faced by rural schools. More specifically, SMH professionals in rural settings face challenges that are unique. These challenges necessitate competencies that address the specific needs of rural schools.

To distill specific competencies needed for rural SMH, two methodologies were used. First, an extensive review of the literature on SMH was done in order to identify key values, knowledge areas, and skills needed specific to rural settings. Second, data were examined from a needs assessment conducted in 39 rural middle/high schools in Ohio during early 2014. All participating schools were members of the Coalition of Rural and Appalachian Schools (CORAS) which includes 136 school districts in 35 counties in the Appalachian region of Ohio. More specifically, 8598 students in 6th through 12th grades across 39 secondary schools located in 6 rural counties in Ohio completed the Community and Youth Collaborative Institute's (CAYCI) Student Experience Survey (Anderson-Butcher, Amorose, Iachini, & Ball, 2013). The SES assesses students' perceptions of academic learning influences, school climate and positive youth development experiences, as well as nonacademic barriers to learning. Student respondents were predominately white (84.7%) and male (49.4%). A significant portion of respondents were living in poverty (45.8%) and all were from rural schools (Anderson-Butcher et al., 2013).

Together, findings from the literature review and the needs assessment in Ohio informed the development of additional competency areas needed for SMH in rural settings. Key competencies include linkage and referral to local mental health services, rural cultural competence, rural poverty, and professional development. Needs assessment findings informed the need for competencies in three additional areas, including academic engagement and support, parent support and family/community connections, and nonacademic barriers to learning. This section presents these additional competencies for rural schools. An overview of these competencies is also presented in Table 4.1.

Linkage and referral to mental health services and informal supports. Unlike their urban counterparts, rural schools often do not have the resources with which to develop a cohesive SMH system (Montiero-Leitner et al., 2006). Despite minimal differences between prevalence rates of mental health diagnoses in urban and rural school populations, families in rural communities experience substantial obstacles to high-quality men-

tal health care (Owens et al., 2008). Rural schools are often not adequately equipped to handle students' mental health needs; however, schools in rural areas report a greater percentage of students who are eligible to receive school-based mental health services. Nevertheless, fewer rural schools indicate that their students receive mental health services as compared to urban schools (Foster et al., 2005).

As such, SMH professionals must be knowledgeable about available mental health resources, be skilled at accessing the multiple mental health and support systems available to leverage in a community, and be skilled in referring and linking youth to these services. Given the limited services available in rural settings, professionals also need knowledge of and the ability to use informal helping systems (such as parent-to-parent supports, mutual support networks, family and kinship care, and faith-based organizations). Additionally, there are other barriers to access for youth and families living in rural settings. One predominant challenge to rural school families is distance and access to transportation. A knowledge of and ability to coordinate available local transportation resources is required in order to facilitate access to service (Pullman et al., 2010). Likewise, an understanding of other avenues of cash assistance may be helpful to support families as they are struggling to meet basic needs. For example, professionals should be knowledgeable of eligibility requirements for programs like Temporary Aid to Needy Families (TANF) or other state-specific cash assistance programs and should be able to link families to these particular services.

Rural cultural competence. Some aspects of rural culture can impede adequate provision of mental health services for youth. These include stigma and a lack of trust in mental health providers. Social stigma and social misconceptions about mental health problems prevent many students in rural areas from receiving treatment. Findings from the needs assessment also support the need for competencies in this area. Results from the needs assessment showed that nearly 1/5 of the youth surveyed indicated that they did not believe their teacher would help them with a "problem." Seventeen percent of the students reported that they did not perceive they could get help from their family when needed. Together these results indicate that approximately 3100 students in this study felt that approaching an adult with a problem was not an option.

School mental health professionals must be knowledgeable of the stigma surrounding mental health problems and the receipt of treatment. Professionals must also be able to address the impact of stigma on students in rural schools. Schools in rural areas have lower population density, but denser social networks, which contributes to a higher degree of stigma (Pullman et al., 2010). The interconnectedness of rural populations increases stigma and distrust of mental health professionals. School professionals need to possess the ability to overcome this mistrust and build trusting relationships with their students and families. This can be accomplished by avoiding labeling and mental health jargon, as well as framing treatment as an opportunity for youth to build social and behavioral skills that build on the inherent strengths of the child. Rural culture often looks at individuals who seek mental health services as "weak," and promotes social isolation (Lee et al., 2009). Minority rural youth may face even greater disparities related to available mental health services (Hogan, 2003). As such, SMH professionals must address their own biases and be able to work with students from various backgrounds. Additionally, differences in these school experiences were found across geographic regions, indicating the need for professionals to be knowledgeable about cultural differences across rural regions. Appreciation for diversity is also imperative, and perceived as lacking among some rural youth. For instance, when asked if "teachers and other school staff treat all students with respect regardless of background or culture," 15% of youth in the needs assessment reported that this did not occur in their schools.

Furthermore, cultural barriers interfere with relationship formation between families and mental health providers. Fear of judgment and ability to trust contribute to inadequate service

provision. SMH professionals need to gain knowledge of the stigma that exists in rural schools and be skilled in addressing its impact on the receipt of mental health service (Montiero-Leitner et al., 2006). Building relationships with children and families is an important skill that SMH professionals must have, in order to gain trust with them and encourage them to receive services. Additionally, professionals must have the ability to build social networks and informal supports within rural school communities is an important way to address stigma and misconceptions regarding mental health as well as provide youth a safe and supportive way to receive help. However, professionals must be able to strike a balance between becoming overly involved and too distant in order to support positive outcomes for youth (Fox, Blank, Kane, & Hargrove, 1994).

Rural poverty. Poverty in rural areas contributes to failure to receive needed services, as well as isolation and lack of health insurance (Lee et al., 2009). In rural areas, medium household and per capita income typically fall far below state averages (Owens et al., 2008). Rural areas usually have a higher poverty rate than those found in urban communities (Farrigan, 2014). Living conditions in rural areas are plagued by substandard conditions (Housing Access Council, 2010). Rural youth are less likely to have access to adequate health care and suffer from disproportionately more disease than youth in urban areas (Elliott & Larson, 2004; Gamm, Hutchison, Bellamy, & Dabney, 2002). Poverty puts rural youth and adolescents at a higher risk for drug and alcohol abuse as compared to urban youth (SAMHSA, 2008). Additionally, rural adolescents are more likely to smoke, and have higher rates of binge drinking, and higher rates of drug use. Adolescents in rural areas are at a higher risk for continued substance abuse into adulthood, higher drunk driving arrest rates, and gang activity (Carlo, Crockett, Wilkinson, & Beal, 2011). Finally, rural families may not be able to afford drug and alcohol treatment services; many face barriers to paying for needed care as a result of lower income, hence less ability to pay directly for services, lack of insurance coverage for drug diversion services, and higher premiums or copayments for treatment (Elliott & Larson, 2004; Pruitt, 2009). Professionals must be adept at understanding the impacts of poverty in rural areas. They need the knowledge and ability to conduct a community needs assessment that will enable them to gather information to use for program selection and planning. They must also be able to connect youth and families to social services as well as link youth and families with services that will promote their educational learning and promote future workforce and career readiness (Carlo et al., 2011; Lee et al., 2009).

Academic engagement and support. Student learning within the schools is influenced by a variety of aspects including school connectedness, academic motivation, academic press, and support for learning. Findings from the needs assessment point to several areas in which students in rural settings report problems and needs. Results from the needs assessment indicated that 26% of the students reported that they "did not enjoy coming to school." Additionally, 12% of the students noted that they would not get help from a teacher if they had a problem. Additionally, about 14% of students felt that their school experience was not preparing them for adulthood. Overall, responses on the needs assessment demonstrate the need for SMH competencies in promoting academic engagement and learning. Most importantly, many youth did not enjoy coming to school. Additionally, needs assessment data found that 58% of youth do not feel a strong sense of connectedness to their school. Fostering belonging and connectedness is important, as students' connections to their schools can influence their grades and school performance, as well as graduation from high school (Battin-Pearson et al., 2000; Klem & Connell, 2004; Nasir, Jones, & McLaughlin, 2011; Voelkl, 1995; Wentzel, 1998). In addition to academic outcomes, school connectedness has been shown to serve as a protective factor against depression (Langille, Rasic, Kisely, Flowerdew, & Cobbett, 2012; Millings, Buck, Montgomery, Spears, & Stallard, 2012). As such, SMH professionals working in rural schools must be skilled in creating an atmosphere

that supports academic learning influences for all students. They also need knowledge and skills related to fostering student engagement in learning, school enjoyment, school pride, and a sense of belonging.

Parent/caregiver support and family/community connections. Research demonstrates that parental/caregiver involvement and support of learning and academic growth can improve children's academic outcomes (Jeynes, 2007; Karbach, Gottschling, Spengler, Hegewald, & Spinath, 2012; Rogers, Theule, Ryan, Adams, & Keating, 2009). Despite the importance of parental involvement and support, students from rural settings who participated in the needs assessment reported that parent/caregiver and family engagement was an area that needed to be improved. More specifically, results from the needs assessment indicated that:

- 24% of students felt that their parents do not help them with their homework
- 19% of students are not asked about schoolwork by their parents
- 21% reported that their parents do not "talk to them about what I do in school"
- 15% of students did not feel that their parents pushed them to work hard at school

As such, rural SMH professionals must be able to foster family involvement and support from the families of rural youth, thus engaging parents and caregivers in monitoring, supporting, and pushing for student learning and progress. Examples of engaging families include scheduling meetings with parents during times they can attend and in locations that are accessible to them. Professionals may also engage with parents through faith-based organizations that parents are members of. Additionally, professionals may make a point to attend community events that families are likely to attend in order to speak with families informally.

The importance of relationships with families and others in the community also was evidenced in the needs assessment by low ratings in the area of family and community connections. The assessment indicated that 22% of students did not feel a sense of belonging within their communities, and approximately 19% of students did not feel that they had an adult mentor in their community who would support or encourage them. SMH competencies at fostering community engagement in and support for students' learning is a growing priority, especially given the research documenting the importance of a caring adult in the lives of children. Likewise, SMH professionals also need knowledge of informal helping systems such as community-based parent-to-parent support organizations, student support networks, youth-adult mentoring programs, community engagement opportunities, and faith-based organizations. Oftentimes these organizations and entities focus on student success and are an invaluable components of the SMH professional's toolbox.

Nonacademic barriers to learning. Nonacademic barriers to learning include student behaviors that may impact academic functioning. Internalizing behaviors, which include sadness, apathy, and lack of sleep, were an area of need among the rural youth responding to the needs assessment survey. Internalizing symptoms were especially prevalent among rural youth surveyed in the needs assessment. For instance:

- 29% of the students had trouble sleeping within the past week.
- 27% of the students had felt sad in the past week.
- 24% in the week prior to the survey felt like they had not cared about anything.
- 19% of the students felt lonely.

As such, it is important for rural SMH professionals to be particularly knowledgeable about the signs and symptoms of internalizing behaviors and related mental health problems, as these may be increasingly prevalent among rural youth. As well, SMH professionals need to be skilled at identifying the early signs of risk, especially internalizing symptoms, and be able to implement evidence-based practices to address these nonacademic barriers (or know how to refer to those systems or supports in the community that

can). Furthermore, SMH professionals must be able to facilitate teachers' and other school staff members' abilities to recognize mental health problems and make referrals. This may be done through school-wide trainings or individual consultation (Jorm, Kitchener, Sawyer, Scales, & Cvetkovski, 2010).

Professional development. With these specific competencies in mind, rural SMH professionals should seek out professional development opportunities to improve their knowledge and skills. Presently, 63% of rural schools report that there is no system in place for professional development related to children's mental health (Hogan, 2003). Additionally, SMH professionals are often given non-counseling roles such as clerical or disciplinary duties when resources are stretched thin. SMH professionals must have the knowledge of and ability to connect with mental health resources in the community and online in order to seek out professional development opportunities that will better their practice. Table 4.1 details both the general and specific competencies for rural SMH professionals.

Implications for Preparation Programs and Professional Development Opportunities in Rural School Mental Health

Ideally, mental health professionals in training should be exposed to the six core competencies presented in this chapter and outlined in Table 4.2 before they enter the workforce on a full-time basis. These competencies include key policies and laws, collaboration, learning supports, data-driven decision making, personal/professional growth and well-being, and cultural competence (Ball et al., 2010). In addition to these general mental health competencies, school professionals who intend to work in rural settings should seek out additional coursework that addresses the SMH competencies unique to rural settings. These competencies are also outlined in Table 4.2 and include linkage and referral to mental health services and informal supports, rural cultural competence, rural poverty, academic engagement and support, parent support and family/community connections, nonacademic barriers to learning, and professional development. Professional preparation programs must work to include courses that cover these important areas.

Within these preparation programs, administrators should also work to design interdisciplinary programs that combine future school professionals from various disciplines in the same classroom. The involvement of multiple disciplines is essential for the success of SMH programs; however, in practice it can be difficult to implement. Our present educational framework trains professionals in their own areas, with their own specific set of values and competencies. Training on broader SMH competencies is not universal. For example, community-based SMH professionals often lack school-specific training and require additional support in this area (Paternite, Weist, Axelrod, Anderson-Butcher, & Weston, 2006). Lacking school-specific training can lead community-based professionals to overlook academic outcomes in favor of clinical outcomes (Green et al., 2008). Alternatively, the training of school-based professionals, i.e., teachers, often emphasizes the academic side of school at the expense of overall child well-being (Weston et al., 2008). Although it is important for professionals from each discipline to become experts in their particular field, it is also important that they become experts in the overarching field of SMH. Administrators of professional preparation programs must support interdisciplinary work in order to address the challenges that our current system has created.

Once professionals enter the workforce, they need a way to stay current on these general competencies and the changing needs of rural settings. This is especially important for rural professionals who report not having adequate professional development or continuing education opportunities available. School districts should work together to provide continuing education for professionals that will support and promote the mental health of the children in their schools. Given the geographic challenges that many rural professionals face, alternative forms

Table 4.2 General and specific competencies for rural school mental health professionals

Core competency	Knowledge and skills
Key policies and laws	• Knowledge of key policies at the federal, state, and local levels that impact youth and families • Knowledge of discipline-specific standards and ethics • Knowledge of the political context in which schools exist • Ability to advocate for policies supporting youth • Ability to accurately convey information about policies and laws to families and other professionals
Collaboration	• Knowledge of effective collaboration strategies • Ability to effectively communicate and form relationships with other professionals as well as children and families • Ability to work within and across multiple systems
Learning supports	• Knowledge of evidenced-based supports for academic, social-emotional, and behavioral learning • Knowledge of how learning supports can be used within a three-tiered system • Ability to recognize early signs of mental health problems • Ability to effectively implement evidence-based learning supports
Data-driven decision making	• Ability to collect and use relevant data to support the well-being and success of youth
Personal/professional growth and well-being	• Knowledge of personal and professional needs • Ability to seek out professional development experiences • Ability to provide professional development based upon the area of expertise • Ability to ask for support and guidance when needed
Cultural competence	• Knowledge of culture's role in education and mental health • Knowledge of personal biases • Ability to work with students, families, and professionals from diverse backgrounds • Ability to promote tolerance and respect
Linkage and referral to mental health services and informal supports	• Knowledge of available mental health services • Knowledge of informal helping systems • Knowledge of transportation systems and resources • Ability to link and refer students with appropriate service • Ability to create and coordinate local transportation networks
Rural cultural competence	• Knowledge of stigma associated with mental health services in rural communities • Knowledge of person biases • Ability to build relationships with children and families to engender trust • Ability to help students and families address problems faced by youth • Ability to work with students and families from various backgrounds
Rural poverty	• Knowledge of the impacts poverty has on rural communities • Knowledge of community needs assessments • Ability to connect children and families to social services • Ability to conduct own needs assessments of the community • Ability to address alcohol and drug use among rural youth
Academic engagement and support	• Knowledge of the factors that impact academic learning in rural youth • Ability to create an academic atmosphere that supports learning and promotes belonging within schools for all students • Ability to support students' connections with schools • Ability to connect school experiences with students' future plans
Parent support and family/community connections	• Knowledge of the importance of parental involvement on academic outcomes • Ability to build relationships with parents • Ability to encourage parental involvement in schools • Ability to encourage parental support of academic endeavors • Ability to build social networks and informal supports within rural school communities

(continued)

Table 4.2 (continued)

Core competency	Knowledge and skills
Nonacademic barriers to learning	• Knowledge of internalizing and externalizing behaviors in youth • Ability to identify internalizing and externalizing behaviors in youth • Ability to talk to youth and families about sadness, loneliness, sleep problems, and lack of interest in activities • Ability to identify and address bullying in schools
Professional development	• Knowledge of mental health resources in the community providing interservice professional development programs • Ability to seek out nontraditional (i.e., distance learning, interdiscipline) professional development programs

of professional development are needed, including online training opportunities and consultation models that utilize technology that increases access to resources. For instance, Intermountain Health Care has a strategic initiative called Telehealth. They have invested in "telebooths" that allow family practitioners and SMH professionals in rural Utah communities to access expert consultants (such as psychiatrists, neuropsychologists, and other specialists) located at the state hospital. Rural SMH professionals can case difficult cases "live" via the "telebooths," receiving expert guidance on treatment options, medicine management, and assessments (T. Atallah, personal communication, February 9, 2015). To facilitate the sharing of ideas and resources, rural SMH professionals in similar regions may form communities of practice. Having these opportunities available will allow professionals to be better prepared and deal with the mental health needs of rural youth.

Conclusion

This chapter reviewed the need for mental health services within schools, especially in rural settings. General competencies for all SMH professionals were identified, as well as competencies specific to rural settings. The importance of preservice training, professional development, and continuing education, especially in alternative forms, was reviewed as ways to ensure that SMH professionals gain knowledge and skills related to these competencies. It is our hope that this chapter will serve as a guide for improving practice and training in the area of rural SMH.

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Preservice Teacher Education for School Mental Health in a Rural Community

5

Susan Rodger, Kathy Hibbert, and Michelle Gilpin

Introduction

Pre-service teacher education, the initial education experience for students who are planning a career in teaching, is replete with opportunities to influence not only knowledge about pedagogy and curriculum, but also healthy child development, mental health, professional practice and self-care. The importance of self-reflection, critical thinking and inquiry is appearing in much of the literature about "good" teacher education (Castro, Kelly, & Shih, 2010). According to Darling-Hammond (2000), "Developing the ability to see beyond one's own perspective, to put oneself in the shoes of the learner, and to understand the meaning of that experience in terms of learning is perhaps the most important role of universities in the preparation of teachers" (p. 170). In addition to opportunities to develop the self-reflective capacities, it is also critically important to provide opportunities to learn about mental health and supporting mental health in schools.

There is no doubt about the important role teachers play in the mental health and well-being of students, but as Gibson, Stephan, Brandt, and Lever (2014) recently noted, "There is a discrepancy between the identified role of teachers in mental health care and their training related to mental health" (p. 270). Teachers provide support for social emotional learning and need to have a good understanding of child development, promotion of health and wellness (including mental health), social determinants of health, culture and context. The development of this critical knowledge, beliefs and skills, however, has been described as limited (Gibson et al., 2014; Weston, Anderson-Butcher, & Burke, 2008), or altogether missing (Rodger, Hibbert, & Leschied, 2014). Including this in the formal curriculum of teacher education is critical not only in the context of the knowledge and skills that new teachers will need in order to meet the needs of their students and school communities, but also in the context of building professional knowledge and connections that will help the next generation of teachers see themselves as part of a cohesive system of support for the whole student that includes physical, cognitive, social and emotional well-being.

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Sustainable and effective transformation in mental healthcare systems that support wellness, notably the Interconnected Systems Framework (ISF) for School Mental Health (Barrett, Eber, & Weist, 2013), requires effective collaboration and teamwork, shared values, power and ownership, and attention to building good relationships. The team must include teachers, and these concepts are central in Weston et al.'s (2008) model for teacher education to support expanded school mental health, where they build on the three core values of culturally relevant and strength-based teaching that incorporates a child-centred, family-driven network; strong school-family-community partnerships; and "whole child" perspectives and developmentally appropriate approaches (p. 28).

According to Darling-Hammond (2000), teacher education ought to encourage prospective teachers to investigate learning and the lives of learners, build knowledge, honour practice, reflect on research and "reach beyond their personal boundaries to appreciate the perspectives of those whom they would teach" (p. 171). Luis Moll's (1992) research into the lives of children concluded that teachers need to tap into their students' "funds of knowledge" while helping each other build mutually helpful networks to allow them to better access community resources. The notion of cultural or "place-based" competence in teaching has been an ongoing theme, and more recently has expanded to include rurality from the perspective of school leaders (Williams, 2012). Research on rural teacher education from Australia, Canada and the USA speaks to "the rural as complex social space" and "the rural problem" in teacher education (Reid et al., 2010, p. 263), the importance of regional differences between communities, and a "sense of place" (Barter, 2008, p. 472). These perspectives provide important background and context for teacher education.

Mental health and teaching in rural communities. Owens, Watabe and Michael (2013) point out that the unique features of people living in rural communities (e.g. extended family networks and distrust of people and service providers who are viewed as "outsiders") are important to take into account when designing mental health services and understanding help-seeking behaviours for children and families. Reflecting on the social location of teachers in rural schools and communities, we argue that effective pre-service teacher education and an orientation to the profession include being a connected and vital part of the community, and agree that "… insertion of oneself into the community is important" (Willis & Lewis, 1998, p. 62).

Teachers as active members of the community in which they work have long been recognized as significant contributors to improvements in both teaching and learning (Hargreaves & Fullen, 1998). The research on the development of teachers' agency, professional identity, value for research, and attitudes and abilities for professional collaboration points to the importance of pre-service education as a time where lifelong habits, attitudes and practices are formed (Hulme, Baumfield, & Payne, 2009). Such foundations are important in a successful entry into the profession: research has demonstrated that new teachers can struggle with stress, a sense of isolation, help seeking and a sense of competency (Castro et al., 2010). It is important to note here that schools in rural and underserviced areas have higher turnover and lower retention rates for new teachers (Casey, 2012; Darling-Hammond, 2000). In order to build the necessary capabilities that will sustain and provide important foundations for teachers, we mirror the inquiry-based approaches that they will use with their own students, creating one of many corollary, or mutual, perspectives. These approaches treat pre-service teacher education students as cultural beings, lifelong learners, individuals who need to attend to their own mental health and relationships as well as active professionals in schools and school systems.

Theoretical Perspective

Relational cultural theory (RCT; Jordan, 2010) provides the framework for advancing pre-service teacher education for school mental health in rural communities. Unlike traditional theories of human development that position independence as the goal, RCT is based on the

notion that the goal of human development is to be connected to one another in mutual, growth-fostering relationships. This mutuality is embodied in being authentic, showing empathy, giving and receiving support and sharing power; those who are engaged in growth-fostering relationships will experience energy, clarity, an increased knowledge of oneself and others, an increased sense of worth and a desire for more connection. Originally developed as a model for therapy, and with research supporting the concepts in the workplace (Fletcher, 1996), RCT appears to provide a very useful and practical way to think about, teach and live in community as a teacher, a student, a family, a community and a team. The way in which RCT allows the inclusion of culture is particularly helpful.

Cultural Context

Cultural humility is a concept that has been developed in response to notions of cultural "competence", which can be unrealistic or unattainable, and is seen as a process that demands lifelong learning, engagement, self-reflection and advocacy for the needs of others (Waters & Asbill, 2013). Culturally responsive teaching is, according to Willis and Lewis (1998), about teachers focusing on academic achievement, allowing students to be who they are, and having a sociopolitical consciousness that allows teachers to not only have a greater sense of community, but also be in a position to critique their own education. This self-reflection must also include privilege and taken-for-granted experiences such as having a stable home life and adults who care(d) for us (Herman, 1997), healthy relationships (Jordan, 2010) and freedom (Sen, 1992). In other words, cultural awareness is central to responsive teaching.

Mental Health Literacy

The concepts of mental health and school mental health have been explored in depth elsewhere in this book, but here we focus on mental health literacy, a term first introduced by Jorm (2000) describing "knowledge and beliefs about mental disorders which aid in their recognition, management, or prevention" in the context of his work training doctors and other healthcare workers (p. 396). While healthcare researchers have been talking about mental health literacy from within the medical model, mental health and education researchers have been talking about the teacher competencies and dispositions that promote healthy development and successful learning among students using a strength-based model.

The notion of mental health literacy builds on the concept of literacy which is, in very general terms, the ability to read and write and carries with it an acknowledgement of not only the power that comes to those who have this ability but also the ways in which people who do not have literacy are disempowered. The discipline of education has been working for many years on the notion of literacy, its meaning and how to develop it. More recently, Cazden et al. (1996) have expanded traditional conceptions of literacy in ways that acknowledge meaning making across texts, languages, contexts and cultures with a goal of helping people participate fully in their civic lives, building on concepts of power, advocacy and connection (Cazden et al., 1996; Cope & Kalantzis, 2000). This expanded approach to literacy fits well with Amartya Sen's Capability Approach (Sen, 1992). Sen, a Nobel laureate in 1998, economist and philosopher, advances the notion that what people can do and be is more important than what they have, and that having the capability to achieve means having the freedom to achieve. One of these capabilities is literacy. As Lea (2011) writes, "Defining a particular set of capabilities as a 'literacy' means that: they are a pre-requisite or foundation for other capabilities; they are critical to an individual's life chances; they are essential to the making and sharing of culturally significant meanings; as a result, there is or should be a society-wide entitlement to these capabilities at some level" (p. 2).

The working definition of school mental health literacy developed by the School Mental Health Literacy Roundtable in Canada in 2012 is more specific and provides guidance for schools

and systems as they focus on education sector staff. This definition is operationalized, describing "the knowledge, skills, and beliefs that help school personnel to create conditions for effective school mental health service delivery; reduce stigma; promote positive mental health in the classroom; identify risk factors and signs of mental health and substance use problems; prevent mental health and substance use problems; and help students along the pathway to care" (SMHSA Consortium, 2012, p. 4).

Expanding this definition to include self-knowledge and self-care with respect to teachers' own mental well-being, in line with RCT, makes a positive connection to capacity building and strength-based approaches more common in education. Another element that connects the notions of strength-based perspectives and mental health literacy is that of agency. In this model, neither children nor teachers are passive observers, but active and capable in the pursuit and attainment of good health. If we are to provide opportunities for learning, reflection and development of self-efficacy for teachers regarding well-being, we view this as a mutual process: as teachers provide safe and caring relationships within which children can experience growth and connection, colleagues and students provide these same conditions for teachers.

The alignment between education in the form of Weston et al.'s (2008) framework for pre-service teacher education for mental health, Cazden et al.'s (1996) concept of multiliteracies, Willis and Lewis' (1998) concept of culturally relevant teaching, and psychology, using relational cultural theory (Jordan, 2010), provides the basis for the recommendations for pre-service teacher education presented in this chapter. Particularly relevant is the appropriateness of RCT's goal of growth-oriented relationships: personal relationships, development of a strong working alliance, relationships between students and teachers, teachers and family, and schools and communities, and between professionals. In this way, we propose to build effective school mental health partnerships between teachers and mental health professionals through the development of growth-oriented professional relationships, embrace a multiliteracy approach to foster full participation, build awareness, respect the strengths of others (including people, communities, systems and disciplines) and work in culturally relevant ways to make a difference in the lives of children, teachers, schools and communities. As we consider the ways in which pre-service teacher education can be part of, and respond to, expanded school mental health models of care in rural communities, a model emerges that has three pillars: culture, knowledge and relationships.

Pillar 1: Culture

As we consider engagement in the rural context, it becomes necessary to first explore a few key questions. What do we mean by rural? What is unique about rural settings and how are they changing? What does it mean to be an educator or a mental health professional in a rural setting? How do issues of community or place-conscious education influence practice in the rural setting? What can rural communities teach us about how to work with them? And where does being "rural" come in to play with respect to supporting or developing mental health initiatives?

As educators and mental health professions seeking to support those living in rural contexts, we must be mindful of the complexities and histories of place. Understanding the diversity of the rural leads to responses aimed at first working with communities to collectively build a response that accounts for their unique histories and needs. As Green (2013) articulates, "pursu[ing] opportunities and creat[ing] public policies and economic opportunities needed to sustain rural communities" (p. 17).

Historically, rural settings have referred to population sparsity or communities formed at non-commutable distances from urban centres. When communities in rural areas first formed, they did so around family, church and school (Budge, 2006) and these networks formed the core of their ability to survive and thrive. The significance of community in rural schools (compared to urban schools) has been well documented

in the literature (Theobald & Nachtigal, 1995). Functioning in rural spaces often calls for reciprocal relationships between families, neighbours and friends in ways that build community while fostering practices of self-governance and sustainability.

There is a strong history that suggests that rural populations have a "sense of place" with values rooted in activities that bind them together around mutually beneficial development. Rural schools (and churches) have historically functioned as hubs in these communities, providing a space for families to come together around shared interests, histories and values. Indeed, Theobald and Siskar (2008) report that "much of the curriculum and policies of rural schools were designed and adapted to meet the needs and beliefs of the community, and the existence and development of the community was predicated, to a large extent, on what happened in the schools" (p. 292).

Rural education was not without its challenges however. Rural areas often have limited access to specialized services, difficulty recruiting teachers (especially with particular specialization in the maths and sciences) and difficulty recruiting experienced administrators. Declining enrolment and closure of small schools mark the consequences of globalization, youth "out-migration" and decline in families working in their own land. Economically, this shift reduced the property taxes in rural areas, which saw a parallel decline in funded social services.

What does it mean to be a teacher or mental health professional in a rural setting? Teaching or working as a mental health professional in a rural setting comes with its own benefits and challenges. In remote areas, those who work in rural settings often live in the communities they serve. While this can have benefits, such as having intimate or relational knowledge of the families and the culture in which they serve, this can also create unique challenges. It can be isolating work, as the number of professionals working in these settings can be quite small, and the geographic areas served can be quite vast. Access to support systems and communities of professionals that provide support to the profession can be limited or non-existent. Too often, it is the early-career teachers and administrators who are sent to the smaller rural schools for a few years to gain the experience needed to secure a coveted position in an urban area.

Rural communities, or "incubators of change", according to Parkins and Reed (2012) are however uniquely positioned to reinvent themselves:

> Rural schools have become more sophisticated and more adept at doing what they have always done best—they rely on the local expertise and the concept of community to work together with partners in order to find ways to innovate, to offer as many opportunities as they can for the students they serve, and to support the local people who work hard to make sure that their children receive the best education they have to offer … Such a symbiotic relationship works best when it is based on mutually beneficial, equitable and authentic partnerships; strategic direction and planning at both the grass roots and provincial/territorial levels; the deliberate focus on creating flexible options that can work in multiple contexts; and pressure and support for growth in response to local and provincial/territorial need. (Wallin, Anderson, & Penner, 2009, p. 3)

This social transformation hearkens back to notions of "place-conscious" education and practice (Gruenewald & Smith, 2008; Theobald & Siskar, 2008) as the counterpoint to the erosion of systems which have sought to generalize and impose solutions crafted elsewhere in a context that privileges standards and accountability systems that serve organizational needs more than individual needs. "Nurturing a critical sense of place", Budge (2006) reminds us, "enables students to cherish and celebrate local values, histories, culture, and the ecology of the place they inhabit, and at the same time learning to critique and confront the social political, economic, and environmental problems in their local communities" (p. 10).

What can rural communities teach us about how to work with them in support of developing local mental health initiatives? It is important to understand that rural schools have long been "innovative out of necessity because of their immediate reliance on local economies, demographics, and social circumstances" (Wallin et al., 2009, p. 5). To work in a rural community

then, educators and mental health professionals must first engage with the community they hope to serve (and work with) as a learner. They must develop an understanding of the unique needs or local concerns that the community has identified (or demonstrated), and the resources that currently exist in the community. They must understand what responses have been most effective and why, the extent to which those living in the community use technologies for information and education, and the state of their access to technology. Gathering this information first and then considering the barriers that surround policy-making and governance in advance can begin a dialogue for effective change. Understanding the community's interest in participating in the decision-making process and the unique characteristics of the local setting and knowing the people (and their individual experiences, resources, background and knowledge) can help identify and define the ways in which educators and mental health professionals can be of greatest service.

Rather than seeking to define the rural, it is important to consider how teachers best work within spaces and with people that *define themselves* in multiple ways. Following our desire to work in "culturally responsive" (Willis & Lewis, 1998) ways and drawing on RCT (Jordan, 2010), we argue that integral to developing mental health literacy is first developing a relationship with the communities of those we seek to serve.

Australian educator and scholar Brian Cambourne (1995) has helped us imagine how we might approach this through his work on "conditions for learning" (p. 184). Locating his thinking in a naturalistic setting, Cambourne developed a model that outlines the key, interrelated conditions, offering a way to focus planning events, activities and interactions that foster learning. They include immersion, demonstration, expectation, responsibility, approximation, use, feedback and engagement (Appendix 2). These conditions serve as a useful heuristic for groups of professionals who are seeking to enter into a collaborative and positive working relationship with the shared goal of improving the well-being of a community.

Pillar 2: Knowledge

Self-knowledge, professional identity and self-care are important aspects of knowledge, and are presented first here because of the foundational nature of personal and professional well-being: If we are unwell, we cannot help others achieve wellness. In this way, it is critically important to consider the notion of teacher well-being as a key component of school mental health and preservice teacher education, not only because students will be affected by their teachers' mental well-being and resiliency (Castro et al., 2010) but also because teachers, schools and students are mutually dependent partners in an expanded school mental health system. Teacher stress has been shown to be a significant factor in job satisfaction and retention (Ferguson, Frost, & Hall, 2012). While personal and professional growth and well-being have been identified as an important teacher disposition by Weston et al. (2008), there is little evidence that this is included in most preservice education curricula. It is important that preservice teacher education include attention to mental health because as they observe, "When students and teachers are healthy, the school environment is healthy, and the conditions for learning are present so that students and teachers alike can flourish" (p. 33). In particular, two principles outlined speak to the professional knowledge required by teachers:

Principle 5: The teacher engages multiple systems and people in practices that maximize academic achievement, healthy development and overall school success (the skills here include engaging people within and across systems in shared work for promotion of healthy student development and academic success).

Principle 6: The teacher demonstrates knowledge and skills that facilitate personal and professional growth, development and overall well-being (the skills here include engaging in ongoing reflective practices by monitoring affect values, biases, beliefs, perceptions and assumptions, and evaluating the impact of these influences on others and self) (p. 31–32).

Several factors have been shown to be significant predictors of teacher stress including internal factors such as emotional awareness (Vesely, Saklofske, & Leschied, 2013) and external factors such as workload (Ferguson et al., 2012), organizational uncertainty (Phillippo & Kelly, 2014), lack of support from colleagues (Kovess-Masfety, Rios-Seidel, & Sevilla-Dedieu, 2007), student behaviour and perceptions of student support systems (Ball & Anderson-Butcher, 2014). A lack of or limited training in student mental health likely contributes to teacher burnout and turnover. Up to 50% of teachers leave the field within 5 years, and more than one-third of these cite student behaviour problems as a primary reason for their dissatisfaction with the field (Gibson et al., 2014). A review of school mental health interventions from 2012 reveals that teachers were actively involved in over 40% of interventions reviewed and were the sole providers of interventions in 18% of the studies (Franklin, Kim, Ryan, Kelly, & Montgomery, 2012). Resilience for teachers, the "ability to adjust to carried situations and increase one's competence in the face of adverse conditions" (Castro et al., 2010) is as important as student resilience. However, as Weston et al. (2008) have observed, "… little attention is given to the multitudes of at-risk teachers who exist in our public schools" (p. 32).

In the past 20 years or so, sweeping educational reforms have redefined expectations of teachers. Increasing demands and new levels of "professionalization" (e.g. formation of the Ontario College of Teachers) have emerged alongside increasing regulations, surveillance and controls that have resulted in a "deprofessionalization" (Hargreaves & Goodson, 1996). Work intensification results in less "downtime" during the work day (time to reflect on teaching or keep up with developments in the field), a sense of overload (which influences their ability to do longer term planning and fosters dependency on externally produced materials and expertise), isolation from colleagues (because there is no time for feedback, collaboration or sharing of ideas) and becoming more dependent on external specialists (which introduces doubt about their own competence), and links intensification with deprofessionalization in the way that "a teachers' job is no longer conceived of as holistic but rather a set of separated tasks and assignments … and part of a power struggle" (Hargreaves & Goodson, 1996, p. 211).

Developing mental health literacy acknowledges the development of a social practice embedded in a variety of institutions including families, schools and communities as well as in the broader network of government agencies, professionalized bodies and corporate culture. Institutions are sustained by heavy trading in that which Stout (1988) refers to as external goods: an institution's hierarchical organization is frequently based on the distributive structure and exchange in terms of material goods, power, status and money. External goods are more often than not aligned with the administrative processes involved in systems of education and the running of schools. Internal goods are associated with educational concerns such as the teaching and learning process involved in individual student learning and wellness. The external goods are often found to work at cross-purposes with the social practice and practitioners themselves. Stout (1988) argues that it is in the "uneasy relations between our social practices and our institutions that many of the most deeply felt problems of our society lie" (p. 276). Teacher wellness must be addressed from an educational, organizational and personal perspective.

In a recent review of the literature, Phillippo and Kelly (2014) observe that "School-based mental health (SBMH) research often underplays the crucial role that teachers play in supporting student mental health, even as teachers often find themselves encountering student mental health issues" (p. 184). But how are teachers expected to provide this support without the proper resources? As Bryer and Signorini (2011) observe:

> Regular classrooms in primary school remain an appropriate place to support the wellbeing for students with social, emotional and behavioural difficulties. Yet, educational servicing of mental health generally and internalising problems specifically appears heir to the difficulties of much planned reform in education. That is, teachers are left to find ways to implement a social curriculum reform

> with general but fragmented support … [which] requires more institutional commitment than the goodwill of another generation of teachers 'to give it a go. (p. 251)

The existing research does not adequately address the roles and needs of practicing teachers let alone pre-service teachers. In fact, mental health is something that few education students learn about (Rodger et al., 2014), and if they are exposed to mental health curriculum, it is often through "incidental exposure" in their practicum setting (Bryer & Signorini, 2011).

In their article, "Comprehensive Curriculum Framework for Teacher Preparation in Expanded School Mental Health", Weston et al. (2008) provide an excellent blueprint to further develop for rural pre-service teacher education encompassing both the internal and external goods (Stout, 1988) that teachers need to know and understand as they take their place in their school community and in their profession, the culturally relevant teaching (Willis & Lewis, 1998) that will allow them to be responsive to their students and their community, and the growth-fostering relationships (Jordan, 2010) necessary for continued health and development as a person and a professional working within an Interconnected System (Barrett et al., 2013).

The opportunities in preservice teacher education. Our inquiry has suggested that we have an opportunity in teacher education to influence these new professionals in expanded school mental health in multiple and important ways:

1. Encourage development of a view of self as a researcher, inquirer and knowledge builder
2. Teach for the development of the dispositions such as prosocial values, attitudes and beliefs that will inform and guide their practices as an effective, inclusive and culturally sensitive teacher
3. Teach the skills of relationship building and encourage ways of being that will sustain them in their lives and through changes in their work and personal contexts
4. Develop their identity as a helping professional where their flexibility, responsivity and caring do not compromise them or their professional identity as teacher
5. Plan for challenges so that where they may experience working and living in systems that may be at different places in the conditions for support of 1–4, they are prepared

In traditional teacher education programs, students take classes in education policy, the history and philosophy of education, laws relevant to education, and of course curriculum and pedagogy. However, we are presented with an ethical issue: we have a great deal of evidence to suggest that many children and youth are struggling (Kessler et al., 2007), and yet more evidence that there are prevention, promotion and intervention strategies that can make a real difference (Durlak & Weissberg, 2011; Horner et al., 2009). Darling-Hammond (2006) suggests that

> … schools of education must design programs that help prospective teachers to understand deeply a wide array of things about learning, social and cultural contexts, and teaching to be able to enact these understandings in complex classrooms serving increasingly diverse students in addition, if prospective teachers are to succeed at this task, schools of education must design programs that transform the kinds of settings in which novices learn to teach and later become teachers. (p. 302)

To commit to a curriculum that is inclusive of both traditional and more contemporary elements, however, is a challenge for teacher education programmes as they struggle to do more with less:

> Content knowledge can be gained to a large extent in the preservice classroom. But place-based cultural competency- the ability to function well and respectfully amidst those things that define a people and a place and make them unique- is more difficult to teach in a preservice course. (Williams, 2012, p. 27)

Such knowledge and learning approaches can include relationships, culture and context to present pre-service teacher candidates with complex and rich learning opportunities that will provide some preparation for the complex communities and relationships within which they will practice (see Appendix 3 for an example of learning activities designed to increase both self-awareness and awareness of the lives of others in a pre-service teacher education classroom).

Pillar 3: Relationships

As we have noted, work in rural settings can present unique challenges, especially for new teachers who are likely to be placed in remote areas. Yet, these challenges need not be framed in a way that defines rurality from a deficit-based perspective, even if accessibility issues to mental health services and opportunities for collegial support are fewer, relative to resource-rich urban settings. Nonetheless, the opportunities to explore and discover the unique elements within a particular rural setting can be truly enriching for teachers who need to rely on the shared experiences and the many examples of self-reliance within the community in promoting mental health among students.

A key aspect to understanding a culture and operating within culturally complex relationships is to understand its language. In the context of rural mental health, the language and terminology that pertain to mental health support staff and the terms relevant to mental health concerns need to be carefully considered. Commonly in educational settings, these professionals are described by a variety of titles such as school counsellor, mental health counsellor, psychologist, social worker, therapist or school support counsellor. These terms are often used in an interchangeable manner that implies (albeit erroneously) a common base of knowledge, skill and training. Yet, there are regional, generational, societal and political pressures that have influenced the way that mental health supports have been used in educational fields. Prior to 1980, for example, school counsellors were more directly trained in mental health issues, but the orientation to mental health significantly changed following the School and Educational Reform Movement in the 1980s (Dally, 2013).

An increasing focus on academic achievement and vocational/post-secondary preparation replaced attention to mental health and directly influenced teacher preparation models and perceptions of responsibility. Whereas there had been an opportunity for teachers to be trained more explicitly in mental health initiatives three decades ago, this direction has been reshaped over time by political and economic pressures that focused on alternative "skill-based" definitions of student success. Student success, when defined by achievement outcomes alone, is not attainable without a foundation of student mental health and well-being. Indeed, attitudes and priorities have come full circle, but teacher preparation and expectations of the teacher's role are still catching up. So, what does this mean in terms of collegial support for teachers in school settings?

The good news is that because recognition of positive mental health is gaining momentum, efforts are being made to build the capacity of mental health supports within educational settings. Apart from legal, union or geographical barriers, there are still a number of resources from which teachers can draw when seeking consultation. Additionally, the online community provides many new and innovative ways to seek direction and share common experiences. Yet, no amount of information or "training" can replace the inherent value of a collaborative relationship with a colleague with whom you can share your ideas, questions and concerns.

Getting to know the rural community, both professionally and personally, is critical. Who within the school system is primarily responsible for student mental health? How do these colleagues intersect with what might be available within the local community? Becoming familiar with the specific titles of the mental health professionals in the school and local community remains important. Sullivan (2012), for example, found that school counsellors in both rural and urban settings interacted with a wide variety of staff regarding the delivery of mental health services and supports in their schools. In the study, while the majority of service providers were psychology or social work staff, additional professionals included mental health counsellors, behavioural consultants, substance abuse counsellors, community health providers, nurses, family therapists and psychiatrists. As teachers become familiar with the pathway to care and the circle of support in their school communities, there is less pressure to feel like they bear the sole responsibility for care.

Awareness and knowledge of the supports and how to access them within the school and community, though, do not supersede the need to become familiar with local rural culture. While the school had historically been the hub of a rural community, this may not always be the case today. Closures of small schools and evolution of urban sprawl have often eroded the central role that the small, rural school used to assume. Nonetheless, a variety of locally run events (fall fairs, summer barbeques, organic markets) present a diverse range of ways that teachers can engage in their community. In order to address and promote the mental health and well-being of the students in the classroom, it is important that pre-service teacher education provide opportunities for candidates to become part of the fabric of community life and create opportunities to network with community supports and families; these relationships will become critical when there is a need in the school to address specific mental health student concerns or to promote school-based mental health initiatives. As teacher candidates become familiar with local community culture, they will also gain a sense of how mental health itself is understood and discussed. Every community will most certainly have its "champions" of child and youth health, and pre-service education students can witness that students' families share core values of wanting to promote their children's development in terms of positive social relationships, hope and optimism, resiliency when faced with adversity, hard work and positive self-efficacy and self-worth. These are the foundational elements of positive mental health, even though the ways that these are discussed or promoted may vary. More importantly, these developmental assets are the foundational principles by which positive teacher-student relationships evolve.

In the interests of promoting positive mental health, as with other efforts at growth and learning, the primary change agent is the teacher-student relationship. The field of mental health itself has examined the key role of the relationship between therapist and client and determined that this "working alliance" is a significant predictor of outcome and improvement in client well-being, despite theoretical orientation (Horvath, Del Re, Fluckiger, & Symonds, 2011; Horvath & Symonds, 1991). While the majority of research on the unique contribution of alliance has occurred within the therapeutic research field, the application of these ideas to the educational setting is promising.

As Manso and Rauktis (2011) report, the quality of the therapeutic alliance between teacher-counsellors and residential youth was an important aspect of the perceived value and relevance of the program based on youth's perspectives. Moreover, it would be important to note that youth and adults tended to perceive working alliance somewhat differently. Youth, for example, cited adult behaviours of flexibility, a sense of humour, stable and consistent emotional responses, and models of self-control as the key features that engendered feelings of trust and security in the teacher-student relationships. As Arnow and Steidtmann (2014) noted, the potential of alliance in terms of its generalizability beyond the therapeutic setting has not been fully explored or considered. If we are to apply the concept of alliance to the role that teacher "dispositions" play in promoting student mental health, it would be important to consider what we have already learned from decades of research on the key aspects of therapeutic alliance in the mental health field. The central alliance principles of shared agreement about goals, collaboration on the process of learning and affective bonds based on trust, respect and caring are easily transferable to teacher-student and teacher-community contexts. In fact, Buskist and Saville (2001) make these links explicit in their discussion of rapport between teacher and student. They posit that the central feature of alliance in the classroom begins with trust and is critical to building rapport, enhancing motivation and stimulating learning. Manso and Rauktis (2011) extend this perspective to suggest that a trusting and respectful relationship between teacher and students is necessary, as well, to manage and work through conflicts and miscommunications.

To conclude, we have outlined a framework for preservice teacher education for mental health in rural communities that focuses on three pillars:

culture, through cultural humility and awareness; *knowledge*, of self, pathways to care and school and community resources; and *relationships*, with students, families, colleagues and community mental health professionals. The model highlights the importance of bringing a strength-based perspective on rural communities whereby a teacher can intentionally work to create collaborative and supportive working relationships in the effort to become aware and better informed about student mental health. It also highlights the development of pre-service teacher candidates' sense of self as professional who is a critical thinker, an educator who understands the purpose and practice of schools and education and a caring adult who understands their role in and out of the classroom, in their community of practice.

Teachers have an identified role in promoting positive mental health and addressing early signs of mental health concerns. Yet, this responsibility does not and should not rest solely on the shoulders of teachers, no matter the size or breadth of resources within any given community. We suggest that, in the rural setting, there are unique opportunities for teachers to examine the already existing and creative resources to intentionally identify key community partners who share common health promotion goals and to become a relevant participant in the landscape of rural life. The model we forward is holistic in its imperative; it seeks not only to be a service model for student well-being, but also to create healthier communities that grow mutual understanding and collegiality. It operates on the premise that healthier communities afford healthier adults who can bring their best "selves" to the teaching-learning relationship. It is a model that must be enacted on a daily basis, as schools reimagine a reciprocal relationship with the communities that they serve. It serves as an ethical imperative that prioritizes equitable opportunities for all children to receive a quality education. It strengthens the professionalism of teachers and their ability to be responsive and do what is needed for the children in their care. Operating from this premise, then, it is clear that diagnostic specific mental health training or single-event "workshops" are not the meaningful or relevant supports that teachers need to create mentally healthy classrooms and learning environments. Time, patience and an authentic and respectful interest in the local community will be the more important learning experiences that teachers will need to address student mental health promotion and support.

Appendix 1: Self-Reflection Questions and Activities

Before you agree to that next new mental health training opportunity, you might want to reflect on the following questions. Your personal professional learning needs will evolve and be shaped by students and their families … not by a perceived "lack of knowledge" about a particular mental health issue or informed by the "latest" trend in mental health intervention. Set your own learning plan in your rural setting after you have reflected on what you know, what you thought you knew … and what (or who) you don't know yet…

What Do You Know … About Mental Health?

- Where can you get the facts about the most common mental health issues that affect learning (give specific websites?)
- What are the key developmental assets that can be promoted in the classroom?
- Who are the people in your school, school board and community who have responsibility for student mental health?
- What mental health and social service agencies exist in the area or region that provide assessment, treatment and consultation support?
- Will community agencies come into the school to provide information and consultation?

What Do You Know … About Students and Their Families?

- What is the nature of the employment status among families?
- What percentage of families are involved with rural farming? Does this have implications for attendance and home support? (i.e. harvest season or the long days of farming may result in times that students cannot attend school or

reduce the availability of parents to assist with school-based projects or homework)
- What have been effective ways to engage families in school-based events?
- What are the most effective ways to communicate with families?
- What role do extended family members play in the promotion of child and youth well-being?
- Are there local family centres that provide information and support?
- What organizations or groups exist for young people outside the school environment?
- What are the priorities that families have about their children?
- How does the child's education fit with these priorities?
- Where do youth go to meet locally?
- How well connected are the youth with broader social and global issues?
- What are the key concerns regarding youth in the area? What is the relationship with police services?

What Do You Know … About the Community?
- What is the history of this community?
- Is the community comprised of a homogenous group of people who know each other well, or a diverse set of different groups?
- What are the community expectations of the school, particularly in relation to education and definitions of achievement?
- Who are the key contacts in the community regarding community development and health promotion?
- What local events occur that draw people together?
- Who typically sponsors local events?
- Is there a local collaborative network that can be a source of information about local priorities and issues as it pertains to child and youth health?
- What are the various forums of communication that exist (local library, community events board, local restaurant)?

What Can You Do?
- Get out of the Classroom ….Find out more about your community.
- Identify your potential community resources and supports for mental health; understand their roles and responsibilities as they intersect with the educational system.
- Identify the professional roles that people play in your school board regarding student mental health.
- Examine your own assumptions and preconceived notions about mental health and how these beliefs impact your attitudes about your role in promoting and addressing student mental health.
- Create non-judgemental, informal communication pathways with families.
- Invite opportunities for the youth voice to share concerns and ideas.
- Be prepared to reflect and even shift your expectations, assumptions and notions about mental health and about the rural community in which you work.
- Be aware of your own mental health needs and model adaptive coping behaviours in an explicit way with your students.
- Be patient with the process and recognize that it takes time to build relationships that are trusting, respectful and collaborative.
- Attempt to form authentic partnerships with families that extend beyond academic expectations to include ways to promote positive mental health indicators in the classroom.

Appendix 2: Conditions for Mental Health Literacy Learning

Immersion: immersion in the community along with mental health literacy ideas, dialogue, resources and supports over time

Demonstration: having the opportunity to explicitly demonstrate, model and scaffold learning how to respond, where to seek additional supports and how to practice self-care

Expectation: setting realistic expectations in each given situation for each learner, with an additional expectation of a return to wellness

Responsibility: sharing responsibility for well-being; adults work together to create a safe, resourced and productive learning space, and over time equip everyone to assume responsibility for their own well-being as they are able;

Approximation: Recognizing That Achieving Well-Being Is a Process, Not an Event. Expect Periods of Growth, and Periods of Decline, and Allow for Variations in Individual's Abilities to Develop and Strengthen Their Capacity.

Employment (Use): Ensure that there are ample opportunities to practice new learning.

Feedback: Provide ongoing feedback and support in ways that support positive change.

Engagement: The need for engagement is threaded throughout the conditions. If we want teachers to create engaging spaces for students, we have to involve teachers in engaging experiences as well (adapted from Cambourne, 1995).

Appendix 3

In Our Online Elective Course, "*Mental Health Literacy for Teachers: Supporting the Mental Health and Well-Being of Children and Youth"(Atkins & Rodger, 2016)***,** We Rely Heavily on Inquiry-Based, Peer Learning**.** In the First 9 weeks of the Course, We Introduce the Concept of Children Bringing Their Lives to School with Them, and That Things from Their Lives May Impact their Learning, Academic Engagement and Outcomes. Some Examples Include Living in Poverty, Having a Parent Who Abuses Substance, Living with Conflict in the Home, or Being a Newcomer. We Have Two Main Methods of Promoting Active, Inquiry-Based Learning for Teacher Candidates:

1. Developing and Sharing Local Expertise:
   (a) Students in the class are asked to sign up to become "experts" in one of these areas, and then read through the online folder of information on that topic. Items in the folder include research articles, videos or materials produced by children who live that particular experience and interviews with experts in the area (including experienced teachers, mental health professionals, etc.). They can add new resources to these folders.
   (b) Small discussion groups are then formed using the "jigsaw" method whereby one discussion group has members who are experts in different folders. The students engage in weekly, small-group online discussion and bring their expertise to that discussion, to teach their peers and frame discussions about mental health with the contextual piece.
2. The Voice Journal: Students Are Required to Select One Student from Virtual "Class Photo", and Learn About Them and Their Lives. Weekly Updates About the Selected Student Are Made Available on the Website and Just as Students' Stories Unfold Gradually over the Course of a Year, so Too Do the Stories of the Students in the Class Photo. The Assignment Is Intended to Help Students Learn About the Complexity in the Lives of Students with Mental Health Problems, and Reflect on How They Would Teach and Support Them in the Classroom. (The Profiles Were Developed in Collaboration with Local Teachers, Parents, Youth and Mental Health Professionals.)
   (a) Teacher education students select one of the following students (profiles come with a photo, and the basic biographies; one example is included at the end of this appendix).
   (b) Students are required to write a two-part Learning Journal each week. One entry will be written in the voice of the student, and one entry will be written in the voice of the teacher (that is, first person), reflecting what it is like to be the learner, and the teacher.

Here is one student profiles, and the weekly (abbreviated) updates to which teacher candidates responded:

1	Todd is a 16-year-old Caucasian male from a quiet urban Ontario community where a large part of his maternal extended family lives. The oldest child of three, Todd has a younger sister and brother. Todd began seeing his guidance counsellor before summer began as he noted that his parents "haven't been getting along" and he believes that it is taking a toll on him and his younger siblings. Todd notes that they both work "demanding" jobs and come home tired and grumpy. Todd has noticed the feelings of sadness and anxiety that he and his siblings experience after one of his parents' "yelling matches", and to help cope with it, he writes stories with his brother and sister at the park, or chats online with his girlfriend.
2	You've noticed that Todd has fallen asleep in your class a few times this week. He is usually an exceptionally attentive student, eager to participate and contribute to class discussions. After the third day in a row of Todd falling asleep you decide to ask him if he's feeling ok. He mentions that he's "not been getting much sleep lately" and assures you that it won't happen again. Despite being a social butterfly at school last year, you've seen that Todd seems to be spending his lunch periods with his younger siblings avoiding speaking with his friends. What do you think could be going on here?
3	Out of character, Todd missed 2 days of your class this week. You call home to speak with Todd's mother, who is disappointed to hear that Todd has missed school, but admits that it is not surprising. She goes on to explain that Todd's father has recently moved out of the house. She knows that Todd has been making a significant effort to protect his younger siblings from the fallout of his parents' separation, and is concerned over Todd's behaviour changes as well. She explains that because of her work schedule her kids get themselves to school in the morning. Do you think this information will help you? How? How can you help Todd attend school regularly?
4	It's the fourth week of class and Todd's behaviour continues to become more and more inconsistent with the student you remember from last year. Earlier this week he punched one of his old friends in the face during the lunch-hour break when the friend shouted at him "Your mom is a dyke!" In the principal's office Todd explains that his parents separated over the summer, after his mother came out to her family as a lesbian; he was suspended for his violent outburst. You watch the following video to try to understand what Todd is experiencing: https://www.youtube.com/watch?v=Z9xfHqT1HEY
5	Todd is back in school following his suspension. You pull him aside after class to discuss the work he has missed while away from class and help him get back on track with his work. He sits slouched over in his chair, staring at the floor, not responding. Before he leaves you mention to him that you'd heard from his mother that his parents had recently separated and say "Todd, these things are difficult for anybody experiencing them. If you ever feel the need to talk about it or just want to drop by vent for a bit, feel free to talk to me …". You dismiss Todd go but reiterate that your door is always open if he needs anything. What could be going on with Todd? Is there anything you could do to help him? If so, what?
6	You're working on some lesson planning during one of your prep periods this week when you hear a knock on the door. It's Todd. The two of you sit in silence for a few minutes before Todd looks up with teary eyes and says, "Can I just hang out for my spare so that I can get some work done?" You say, "Todd, you're welcome to come here during your free periods to work as long as you knock on the door when you come by. If I'm planning on working somewhere besides this room then I can't have you in here by yourself". For the rest of the period Todd sits at his desk with a book, but is not reading. When the bell rings Todd gets up to leave and you say, "Todd, I'm happy to have you come by here to work if you want. I just wanted to let you know that if there's ever anything else you want to talk about then I'm here". Todd says, "Appreciate it. I'll see you later". Todd chooses to spend his free period in your classroom for 3 out of the remaining 4 days of the week, never saying much. Why do you think he keeps coming to spend his free periods in your class? What can we do for students who appear to be struggling, but unwilling or unable to speak about it?
7	Todd didn't show up to hang out in your classroom during the first few days of this week but eventually turns up. You welcome him in; Todd sits down at a desk in the front row, biting his lip and looking at everything in the room except for you. "What's up Todd?" Todd sighs softly before saying "Life sucks", and he begins to share with you all of the frustrations he's been experiencing at home. He tells you how he doesn't get to spend very much time with his father anymore, and doesn't know what to think of his mother who has recently disclosed that she is gay. He loves his Mom but is angry with her for "breaking up the family". On top of all this he's been being teased at school about his mother's sexuality. He doesn't feel like he can talk to any of his family or friends about this, and states that it's causing him a lot of stress and frustration. You ask him how he's doing and what he'd like to do now. He tells you that he feels a lot better after telling you, but isn't sure what to do next. How do you react to everything Todd has told you? What can you do for Todd?

8	You've been thinking a lot about your last interaction with Todd and realize that he may benefit from speaking with the school counsellor. The next time you see him he thank you for letting him hang out in the class. You respond telling Todd not to worry about it, that you're here to listen any time he want, but realize that this is becoming more than you can help with. "Todd …" you say tentatively, "I'm hearing that this is a really tough time in your life right now, and I can't believe how well you're doing with all the recent changes you've gone through. I think anyone in your situation would be having a tough go of it … I'm happy to sit down and talk whenever I can, but I can't guarantee that I'll always be available, or know what to say. Have you ever considered making an appointment with a school counsellor?" Todd looks up at you, pondering for a moment. It's as if he's trying to figure out what you're thinking. "Ya, my parents have been trying to get me to make an appointment for the last little while. I'm not really sure what to think about it. I'm not crazy or anything you know?" Together Todd and you discuss reasons why people might go to see a counsellor besides being "crazy". Todd says that he'll think about it and leaves for class.
9	It's been a week since you and Todd spoke about him making an appointment with a counsellor and you've received an email from Todd's mother. "I just wanted to thank-you so much for everything you've done over the last couple of weeks for Todd. His father and I have both been trying to get him to talk about what's been bothering him, but he's preferred to lock himself in his bedroom and ignore us. As time went on it became clear that you were someone he deeply respects, and the fact that you were giving him the space and time to vent about what's been going on in his life, and giving the respect right back to him has made all the difference in the world. He's made an appointment with a school. I know that everything's not 'better', but at least now I know that Todd is going to have someone to talk to outside of the family, both in his new counsellor and you. Thank-you". You're deeply touched by this email. You never thought that you were doing anything special for Todd, just giving him the "time of the day" so to speak. As you sit at your desk pondering how small actions can lead to profound consequences. How did you help Todd over this semester?

For a more complete description of the course, please see:

Atkins, M.A & Rodger, S. (2016). Preservice teacher education for mental health and inclusion in schools. Exceptionality Education *International*, *26* (2), 93–118.

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Why Would Teachers Care? The Value of Rural School Mental Health from an Educator's Standpoint

6

Timothy A. Carey

It is hard to overstate the importance of schooling. In the Western world, people attend school for most of their childhood and adolescence. A child who spends 6 h a day at school, 5 days a week, for 40 weeks of the year, and for 12 years will accumulate 14,400 school hours. In the ideal school environment young people learn what they need to know in order to become competent, confident, and contributing members of society. Teachers and other school personnel, therefore, play a major role in helping to shape the futures of our youth and, by implication, the future of society. The world we live in tomorrow will be heavily influenced by the schooling experiences young people have today.

Attending to the mental health needs of students can help students to experience school more positively throughout their educational careers. Indeed, there are characteristics of rural and remote contexts that make focussing on mental health issues in these settings particularly important. For instance, rural communities are often heterogeneous and complex (Helge, 1985; Sutton & Pearson, 2002) and differ from non-rural settings in many ways (McLeskey, Cummings, & Huebner, 1988). A familiar adage for those people who study rurality is "If you've seen one rural place, you've seen one rural place". Rural communities, for example, vary in the degree to which local physical characteristics affect demographics; the extent of religious affiliation and civic culture; the amount of ethnic and cultural diversity; the stability of the population; and the financial robustness of the population (Hamilton, Hamilton, Duncan, & Colocousis, 2008). Given the differences between rural and urban communities, it should come as no surprise that rural schools also differ from urban schools. Nickerson and Spears (2007) found that, compared to schools in urban settings, rural schools were more likely to use authoritarian discipline practices and to suspend students without services.

As we will see in this chapter, students' mental health is intimately linked with their success at school. It is often convenient for the purposes of research and program development to separate living into discrete areas such as mental health, academic achievement, and social development. However, the *experience* of living—from the inside looking out—cannot be so easily dissected. Students do not achieve academically solely between 9:00 am and 3:00 pm, attend to their mental health in the afternoons and evenings, and develop socially on the weekends.

No matter how finely we like to slice the experience of being human, it is an integrated whole. In schools, we cannot escape the fact that emotional well-being and school functioning are

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inextricably fused. Teachers are, therefore, in the prime position to promote student well-being within the school environment. Given our growing understanding of the importance of the interaction between the environment and genetics, the role of the teacher has never been more pivotal. Donald O. Hebb, an influential neuropsychologist, "commented somewhere that to argue about whether nature or nurture is more important for the development of adult intelligence is like asking which contributes more to the area of a rectangle: its length or its width" (Scott, 1995, p. 153).

Increasingly, it seems to be the case that attributes of intelligence, talent, and genius can be considered processes rather than "things" (Shenk, 2010). Obviously, there will be natural variability among individuals in terms of how intelligent or talented they will become, but it seems that people are considerably less limited than previously thought. Strategies such as nurturing and encouraging, setting high expectations, embracing failure, and encouraging a growth mindset can help individuals discover just how expansive the limits of their capabilities might be (Shenk, 2010). Teachers, therefore, can be a major force in either the flourishing or the wilting of students' capacities. By shifting their perspective to considering talent and competence as processes rather than "things" that students either possess or do not possess, teachers can assist students to become persistent and resilient problem-solvers and achievers which will go a long way to achieving sturdy mental health.

Enhancing student well-being needn't be yet another encroachment on a teacher's hectic schedule but can be a seamless aspect of classroom activity. Small changes can reap large rewards and make schools more satisfying places for both students and teachers. This chapter begins by clarifying some of the terms that are commonly used when discussing mental health and schooling. Then some of the features of rural and remote schooling that are relevant and influential for mental health are briefly outlined. The importance of school to mental health is discussed in terms of concepts such as school connectedness. Some attention is also given to considering those situations where it might be best for teachers to seek outside support to assist with students' mental health. Finally, a theoretical framework is provided that explains why mental health is so important for educators and how educators might be able to systematically promote robust and sustainable well-being.

In writing this chapter, I have drawn upon my professional experiences in education and mental health. I first trained as a preschool and primary school teacher and taught in rural schools, after which I obtained further training in special education and then completed doctoral studies in clinical psychology. I now work predominantly in adult mental health although I maintain links with the field of education. I have supervised research related to school bullying (e.g., Dowling & Carey, 2013; Mackay, Carey, & Stevens, 2011), written about curriculum delivery practices (Carey, 2012), and, from 2008 until 2013, served as the psychology columnist for *Australian Teacher Magazine*, Australia's largest independent teaching publication. As a clinical psychologist with a background in education, I am aware of the incredible potential schools have for helping young people make sense of the world and establishing their place in it.

Context and Terminology

Teachers are under extraordinary pressure nowadays to achieve better outcomes with fewer resources. Mental health need not become yet another area for teachers to squeeze into a curriculum that is already bursting at the seams; however, since mental health has a direct impact on academic performance (Lee, Lohmeier, Nilleksela, & Oeth, 2009), students' emotional well-being dramatically affects their ability to meet the daily demands of school. In fact Mazzer and Rickwood (2015a, 2015b) demonstrated that teachers generally consider attention to student mental health as part of their role but, often, didn't feel adequately prepared to assist students with their mental health needs. Additionally, Hollingsworth (2010) advocates for an approach to education that holistically addresses the overall development of the child

given the important links between well-being, academic achievement, and social development. Devoting some attention to mental health, therefore, can actually make a teacher's job easier. Despite the importance of efficacy with regard to supporting students' mental health needs (Mazzer & Rickwood, 2015a, 2015b), it is not necessary or desirable for teachers to become mental health experts. There are straightforward and uncomplicated ways that teachers can help everyone in the class—themselves included—feel more secure, settled, and successful.

In this chapter, I use terms such as "mental health", "emotional well-being", and "contentment" interchangeably. My preference, actually, is to refer to "mental health" less and "emotional well-being" and "contentment" more, because "mental health" is often associated with specialist services and formal and targeted interventions. Whatever term I use, I am referring to the internal world of the individual and I am making an assumption that people function successfully, and are generally satisfied, when their internal worlds are in the states they prefer.

While I am explaining terminology, it might also be useful to clarify the terms "schooling", "educating", and "learning". These three terms are often used to refer to the same thing when, in fact, they have three different, albeit related, meanings. *Learning* is a process that occurs inside the minds of individuals and results in the acquisition of new knowledge, skills, and abilities. Learning, it seems, can be either implicit or explicit. Through our interactions with others, for example, we might learn that we prefer to be treated with kindness and respect, but we might not be aware of ever learning this. Nevertheless, this learning will have a powerful effect on the social experiences we seek and those we try to avoid. *Educating* is a systematic and explicit process of promoting learning in specific areas. Educating can be conducted individually, as in self-education, or with others. Sports coaching can be considered a form of educating as can involvement in youth groups or civic activities. *Schooling* is a process of institutional education in which formal instruction is provided and assessment occurs according to standardised benchmarks.

It is important to be clear about the differences between schooling, educating, and learning so that, when problems occur, we can target our solutions for greatest effect. Many problems of schooling, such as disruptiveness, noncompliance, truancy, and bullying, may not necessarily indicate problems of learning or educating; however, our capacity to resolve these problems effectively may certainly impact on learning outcomes or the success of any educational program that is implemented. In some remote Indigenous communities in the area where I live, for example, it is not uncommon for young Indigenous children to be fluent in three or four languages when they enter school. English might be their second or third language. Clearly, if children can acquire fluency in multiple languages at a young age, there is nothing wrong with their ability to learn. Failure to achieve in school, therefore, might have more to do with the processes of schooling and educating than with any inherent learning difficulties. An important first step in resolving any problem successfully is to correctly identify the type of problem being addressed.

Why Bother About Emotional Well-Being in Rural and Remote Schools?

While most research concerning the emotional well-being of young people has been conducted in urban areas, the lessons from urban contexts cannot necessarily be directly applied to rural and remote settings. There are certainly similarities in emotional functioning regardless of geography, but there are also important differences. Given the large proportion of students who live and attend school in rural and remote areas (Helge, 1985; Sutton & Pearson, 2002), it is necessary to be aware of some of the distinctions and subtleties of mental health in rural and remote areas and schools so that programs can be implemented most successfully.

Rates of mental health problems. Young people in rural and remote locations experience psychological distress at about the same rate as their urban counterparts (Viswanatha Reddy &

Nagarathanamma, 1993). Lieske, Swearer, and Berri (2013), for example, report that rural youth are at similar risk as urban youth for depression, anxiety, conduct disorder, and substance abuse. Where differences do emerge, they are more likely to be due to factors such as socioeconomic status (SES) and culture than to the degree of urbanization or rurality (Lieske et al., 2013). For example, the substantial economic disadvantage experienced by many residents of rural and remote locations, rather than their rurality, is considered by some to be primarily responsible for the higher suicide rates by young people in rural compared with urban areas (Lyneham & Rapee, 2007). Although the rates of emotional distress among rural and urban youth are similar, there may be differences in terms of the context of the problems. Situations such as drought will be more problematic for rural and remote citizens than for those in urban centres (Dean & Stain, 2010). The consequences of climate change, therefore, might be experienced more severely by those people living outside metropolitan locations.

Stigma and other impediments to service access. Another difference in the experience of mental health difficulties for young people living in and out of cities is that access to services is more limited in rural and remote areas (Wiens, Haden, Dean, & Sivinski, 2010). One reason for this undoubtedly has to do with geography and the large distances that often must be negotiated in order to attend programs and obtain other forms of support. There are also nuances to rural and remote living that impact on service delivery and access to services quite apart from the difficulties with distance. In fact, even when appropriate resources are available, people in rural areas underutilize mental health services (Esters, Cooker, & Ittenbach, 1998).

Stigma is an important consideration in rural areas (Lieske et al., 2013). In small communities, difficulties with stigma are likely to be magnified. Participants in a study investigating rural adolescents' experiences of accessing psychological help reported that lack of anonymity as a result of living in a small community was a concern (Boyd et al., 2007). In many rural areas there is also a culture of "self-reliance" that discourages people from seeking help for psychological problems (Boyd et al., 2007), and poverty can also be a barrier to accessing services in rural and remote contexts (Carlson, 2006; Helge, 1985).

The importance of school in improving access to services. Stigma and rural culture may be some of the reasons that students in rural contexts express a clear preference for being able to access services at school (Boyd et al., 2007; Carnie, Berry, Blinkhorn, & Hart, 2011). Obtaining competent, confidential, caring, and supportive school-based counselling at the first signs of psychological distress is seen as ideal (Boyd et al., 2007; Carnie et al., 2011). Developing close links between schools and youth-friendly mental health services and organisations, therefore, could be beneficial (Martin, Kupersmidt, & Harter, 1996); locating mental health services within school campuses and integrating these services into the school culture may be ideal (Michael, Renkert, Wandler, & Stamey, 2009). While mental health services have an important role to play, teachers are the ones who are in an ideal position to detect and assist students with psychological difficulties at the earliest opportunity.

There is some evidence to suggest that when they want help, rural adolescents prefer people who are non-judgemental, available, and able to relate to teenagers, and they avoid people who are too busy or who act in a superior way (Boyd et al., 2007). While rural and remote adolescents express a desire to talk about their problems at the time they are experiencing them (Boyd et al., 2007), they often seem reluctant to seek professional help (Rughani, Deane, & Wilson, 2011). School personnel, therefore, are ideally placed to assist students experiencing psychological distress by making themselves available and listening to students' problems in a non-judgemental way. The importance of the relationship between teachers and students cannot be overstated. Dowling and Carey (2013) found that while victims of bullying at school reported that teachers were the people most likely to make the bullying stop, they were also reported to be more difficult to communicate with, and less concerned about the bullying, than parents or friends.

Student Well-Being and Achievement at School

There is a strong relationship between school connectedness and academic achievement. Students who feel greater connection to their school are likely to perform better academically and to experience fewer problems such as substance use, aggression, and depressive feelings (Stracuzzi & Mills, 2010). Furthermore, school connectedness even appears to be a protective factor for depressive outcomes (Langile, Rasic, Kisely, Flowerdew, & Cobbett, 2012). Feeling disconnected may affect male and female students in different ways; disconnected males tend to act aggressively and experiment with substances, while disconnected females tend to become depressed (Stracuzzi & Mills, 2010).

Bryant Ludden (2011) reported that rural students who are involved in school and community activities including youth groups demonstrated a variety of positive outcomes related to well-being, attitudes, and behaviour. Compared to uninvolved students, rural adolescents involved in school civic activities reported higher popularity, higher grades, lower levels of school misbehaviour, and less monthly marijuana use (Bryant Ludden, 2011). Involved students also reported higher grades and were more likely to report that doing well in school was important for success later in life (Bryant Ludden, 2011).

Furthermore, Smokowski, Cotter, Robertson, and Guo (2013) reported that every one-unit increase in school satisfaction decreased the probability of high anxiety by 23.3% in a large, racially diverse sample of rural youth from two impoverished counties. These findings should come as no surprise. It stands to reason that students who feel more contented at school are likely to be more involved and to have greater achievements than students who feel alienated or otherwise unsettled at school.

The implications of these findings for classroom practices are not affected by directions of causality. It may be that a sense of school connection leads to greater achievement or that greater achievement leads to a stronger sense of school connection. It may even be a reciprocal, dynamic relationship such that a sense of connection affects achievement, which in turn affects how connected one feels. Whatever the exact nature of the relationship, it remains the case that emotional well-being in young people is strongly associated with positive social and academic development (Cross Hansel et al., 2010). The logic of explicitly attending to student well-being in classroom practices, therefore, seems indisputable.

In addition to a sense of connection with school, the ability to persist at tasks seems to be an important factor in well-being (Rew, Grady, & Spoden, 2012). Rew et al. (2012) suggested that task persistence is similar to self-regulation, as both are modifiable in childhood and important aspects of adolescent performance. Being skilled at self-regulation and task persistence seems imperative for the later development of attitudes of competence and self-worth (Rew et al., 2012). With some careful attention to lesson planning and the structure of activities, teachers could have considerable impact on students' acquisition of the skills of self-regulation and task persistence and, thus, the later development of self-worth and competence. I will have more to say about this in the section outlining the theoretical framework of this chapter.

Schools Have Already Recognised the Importance of Well-Being

Many schools have already recognised the link between well-being and learning. Schools are increasingly viewed as central sites for the promotion of well-being (Vostanis, Humphrey, Fitzgerald, Deighton, & Wolpert, 2013). Furthermore, the value placed on different aspects of well-being is explicitly stated in the missions, visions, principles, and other guiding statements of many schools.

I have collected information provided by schools in the district within which I live, in a remote town in central Australia. There are approximately 60 schools in this district including primary schools, secondary schools, government-funded schools, and private schools. I searched

Table 6.1 A sample of missions and mottos, visions and aims, and values and principles from remote Australian schools including primary schools, secondary schools, government schools, and private schools

Missions and mottos	Visions and aims	Values and principles
• Learning together to achieve our greatest potential • To learn, to share, to lead • To provide quality education so learners can participate fully in twenty-first-century life and reach their potential—educationally, socially, emotionally, and spiritually • Excellence in all that we do • Be strong, be smart, be successful • Learning together, connecting the community	• To create happy secure learning environments • Our school partners with families guiding each child's journey of living and learning, providing hope for their future • To achieve success in a safe and supportive community where diversity is valued • To provide staff and students with the necessary skills and abilities to be self-determining • To provide an education in a caring and diverse community that equips every child to develop their potential, so that they can shape and enrich this world • To foster a safe and friendly environment where everyone is valued and accepted • To nurture the whole person, emphasising honesty, mutual respect, compassion, and tolerance • To educate students to act responsibly and courageously • To develop leadership and encourage initiative • A school community that excels at: striving, seeking, caring • Together we will create a safe, supportive, and stimulating school that nurtures each student to help them grow up strong and successful	• Understanding, respect, integrity, adaptability • Fostering respect and care for one another and the environment • Collaboration, shared knowledge/expertise, friendly, caring, and supportive • Respect and empowerment • Persistence, acceptance, valuing, caring, and friendly • We are respectful, we are responsible, we are fair • Integrity, inclusion, team, diversity, honesty, spirit, learning, well-being, communication, community, cooperation, open, unity, respect, independence, responsibility, professionalism • Educational programs provide for the development of the whole person—intellectual, social, emotional, physical, and spiritual • Children feel safe and are likely to reach their potential when encouraged in a caring environment • The development of a supportive environment that values people and caters for difference

the websites of these schools and collated information relating to missions and mottos, visions and aims, and values and principles (see Table 6.1). Not all the schools had websites, and different schools had different information—some had visions but not mottos, for example. As evidenced in Table 6.1, the importance placed on students' emotional well-being is an integral component of the documentation schools provide to the public.

If school personnel take seriously the guiding statements upon which their school is based, then surely it is important to make these characteristics and qualities an explicit component of the school day. If it is important "to create happy secure learning environments" (see Table 6.1), then how is this being achieved? Is there an understanding of how happy and secure the learning environment currently is, as well as a specification of the levels of happiness and security that are desirable? Is there a clear plan for how the current states of happiness and security can be either increased to, or maintained at, the desired levels? To avoid the charge that the slogans and guiding statements of schools are rhetoric only, it is essential that clear and obvious steps are taken to embody these sentiments in daily classroom practices. Unfortunately, while values such as respect, empowerment, understanding, and acceptance are what schools *say* is important to

them, it often appears through daily practices that what is *actually* important are values such as obedience and compliance.

Also, there currently seems to be a disconnect in schools between the way in which academic problems are remediated and the way in which social problems are addressed. Typically, students who have problems with reading or numeracy are placed in small groups with focussed attention and are given *more* exposure to words and numbers. Students who have social problems, however, are often removed from the social situation and, while they might be given time and opportunities to plan and reflect on their behaviour they are, in effect, given *less* exposure to the social situations in which they currently struggle. Perhaps valuing mental health and well-being as highly as we currently value academic achievement would see a more considered approach to the way we address social difficulties. Arguably, a student who fails to succeed socially will be far more disruptive and at much greater risk than a student who fails to read or manipulate numbers. It is essential, therefore, that educators take seriously the value of mental health in schools.

The importance of teachers. It is also important to recognize that a teacher's influence plays a vital role in the emotional well-being of students (Gupta, 1993). When students perceive their teachers to be supportive and sensitive to their needs, they are more likely to be engaged in school and feel a sense of belonging (Stracuzzi & Mills, 2010). When adults think back to teachers from their own school days, it is probably not the great lesson on Haiku poetry, or learning the name of the long side of a right-angled triangle, that stands out in their memories. They will be far more likely to remember the relationships they had with particular teachers: the ones who were strict and terrifying, the ones who were easy to "wind up", and the ones who were kind, compassionate, and fun. Just by the very nature of their role in students' lives, teachers influence students' emotional well-being and contentment. As a classroom teacher, having an impact on students' mental health is unavoidable. This being the case, it makes sense to allocate some considered and systematic planning to the ways in which teachers can enhance their effect. Teachers appear to be the most important factor in promoting a positive school climate, yet despite this importance, the strategies for developing a positive school climate (e.g., the encouragement of open communication and providing students with an opportunity to express their educational preferences) may be quite unremarkable (Stracuzzi & Mills, 2010).

Knowing When to Ask for Help

Despite a teacher's best efforts, there will be students from time to time who need more support than a teacher can provide. As mentioned previously, early intervention can often be extremely useful in leading to the best possible outcomes and, in this regard, teachers are in an excellent position to alert mental health specialists when problems may be emerging. Given the ongoing contact that teachers have with students, and the relationships they can form with them, sensitive and astute teachers will often notice signs of difficulty before other people do.

Being alert to changes in a student's demeanour and manner can be an indication that problems are occurring. A teacher might notice, for example, that a student has become withdrawn or unusually irritable and surly. Or a student might be late for class and seem excessively tired throughout the day.

Sometimes a teacher might not observe a change so much as a difference between a student and the student's peers that seems out of the ordinary. There needs to be a caution here, however, about expecting an overly narrow, homogenized range of behaviour with students. The quirky creativity of some students should be appreciated and enjoyed, not remediated. At times, however, there may be concerns that something more than a personality style is underlying the presentation.

Perhaps the best advice is for teachers to consult with specialists or experienced peers whenever they are in doubt. The supportive, professional supervision mentioned earlier can be especially useful in this regard where teachers can discuss concerns and think through the most

appropriate course of action. By valuing highly the well-being of students, teachers will be in an important position to enable the successful, ongoing development of all their students.

A Theoretical Framework for Understanding and Attending to Mental Health in Schools

Having now established the importance of developing rural students' mental health in schools, I will conclude this chapter by providing a theoretical framework that will enable educators to address student mental health in an organized, effective, and efficient manner. The way in which we promote well-being very much depends upon the way in which we think well-being arises. Our explanations about well-being and its manifestation can range from carefully crafted theories to folktales and idiosyncratic beliefs. My approach in this chapter is based on a belief that programmes are likely to be systematically (rather than serendipitously) successful if they are based on robust theoretical explanations.

Some theory to lay the foundations for practice. There are many models of human functioning to choose from, but the one on which I base my research and practice is perceptual control theory (PCT; Powers, 2005). PCT was developed in the 1950s and 1960s by William T. Powers, whose seminal work was first published in 1973, followed by a second edition in 2005. PCT has been tested more robustly and has greater explanatory power than any other psychological theory I know. My personal preference is that theories should be accurate and precise, and, in that regard, PCT has achieved an unparalleled level of rigour.

PCT helps to explain why the concepts of self-regulation and connection that were discussed earlier are so important. PCT contends that the reason we behave is to reduce the difference between what we are currently experiencing and what we would like to experience. All of the behaviour of students and teachers, therefore, occurs to either reduce this difference or maintain a reduction that has already occurred. From this perspective, it is the outcome of behaviour, rather than the behaviour itself, that is important to the behaving individual. Different behaviours can achieve the same outcome, and the same behaviour can achieve different outcomes in different contexts. For example, in order to make the current noise level in class more aligned with the preferred noise level, a teacher might frown, cough, move to a different position, shake his or her head, establish eye contact with a student, smile, or look out the window.

PCT is primarily an explanation of control. Although the term "control" often has negative connotations, the phenomenon of control is exceptionally simple and benign. Control is merely the process of making things be the way we want them to be. From this perspective, self-regulation can be considered a process of control. According to this line of reasoning, a classroom of 25 students and one teacher will be a classroom of 26 people all trying to make things be the way they want them to be. When considered in this way, it is astounding that classrooms are as harmonious as they are, as often as they are.

PCT could be thought of as the Goldilocks theory of life. When Goldilocks entered the bears' house, some porridge was too hot, some was too cold, and some was just right. When she tried the bears' beds, one was too hard, one was too soft, and one was just right. It turns out that we all have "just rights" in our heads all the time, about a great many things (Carey, 2012). We behave in order to keep the world we experience in the "just-right" state we have specified it must be in. We do this through a system of perceiving, comparing, and acting—we perceive the way the world currently is, compare it to the way we think it should be (i.e., the "just-right" state), and act to make "is" match "should be". Learning and development, then, could be seen as a process of constructing perceive-compare-act (PCA) units that enable us to create the worlds we desire (Carey, 2012).

From a PCT perspective, robust and sustainable well-being arises when people are able to control the things that matter to them. Schooling can play an important role in this process by helping young people discover what it is that matters to them and learning how to get as much

of what matters to them as they desire without preventing other people from doing the same thing. The more that schools can enable students to be effective controllers, the more satisfied they will be in school and the greater they will achieve.

We learn far more than we are taught. Students are learning constantly. There are many things that students learn in class that are never explicitly taught. In fact, what is learned in school "depends far less on what is taught than on what one actually experiences in the place" (Heaven & Callan, 1990, p. 111). This fact was emphasised to me during my doctoral research. I investigated a little known phenomenon called "countercontrol" that was first mentioned by Skinner (1953). Countercontrol refers to the interaction in which people who are controlled (i.e. controllees) behave in ways to control the controllers. In my research, I surveyed students between the ages of 10 and 12, and their teachers, from a range of different schools. I surveyed students and teachers in government and private schools, large and small schools, and urban and rural schools. Across all of these schools, approximately 10% of students reported countercontrolling their teachers frequently (Carey & Bourbon, 2005). Students were asked to report what they did and how they did it. One female student reported that she could "get [her] teacher to give [her] one more chance", and, to do this, she would "use [her] sweet innocent voice".

I am quite sure that this student had never attended "how to get one more chance" classes, and she may not have even learned this lesson at school, but she had learned something important nevertheless. Students may very well learn more from teachers implicitly than they are ever taught explicitly. On a moment-to-moment, day-to-day basis, they are learning how to deal with conflict, what to do when things don't go the way they want, and much more.

Far more than what we are taught directly, the indirect messages of classroom interactions can provide powerful lessons for life. PCT teaches us that our behaviour can only be oriented towards the PCAs and "just-right" states that exist in our own minds. This is an important point to keep in mind when we discuss terms and concepts with students. "Respect", for example, is a concept that is often described as being important in schools (see Table 6.1) yet it is not always clear how this concept is communicated and promoted with students. What do students understand by the term "respect"? Do they think of respect in the same way the teacher does? For students who come from families, for example, in which the only time they hear the word "respect" is when their parents knock them to the ground with a well-placed strike and say, "It's about time I got some #$!!@& respect around here!!", hearing their teachers talk about the importance of respect in class might be a strange and somewhat disturbing experience.

It is crucial, with any value a school seeks to promote, to consider both the prior experiences students might have about that value, *and also* the experiences the school is providing on an ongoing basis. What experiences of respect, for example, are teachers providing to students throughout the school day? If cooperation is important, are school personnel providing cooperative experiences to students by cooperating *with* them or is the primary experience students have of teachers one of obeying the teacher's instructions? PCT encourages us to consider behaviour from the perspective of the behaving person rather than the perspective of an observer.

My son provided me with a subtly powerful example of the importance of recognizing the individuality of our own and others' experiences and understandings. He had just started school and was thoroughly enjoying his time in class. He came home one day with a small toy that he explained he had received for "being good". I was intrigued by this because my wife and I had never used the word "good" with our son. We had often thanked him for helping or for being kind or considerate, but we had never told him he was a "good boy". So, as he was showing me the toy, I asked him, "What do you think "being good" means?" and he replied, "I don't know really. Mrs. Brown just says it sometimes". My son did not seem to know what "being good" was, but he had learned that if he could get Mrs. Brown to say that he was "being good", then he would receive

things like stickers and small toys. If students can be unclear about what a simple word like "good" means, then it is intriguing to wonder what they might make of words like "respect", "responsibility", and "compassion".

Applying the theory to promote mental health. The fact that we are always behaving to maintain our worlds in their "just-right" states can be put to good effect in schools to promote robust mental health. While it might seem like a daunting task to help people learn to obtain what is important to them without stopping other people from doing the same thing, in practical terms this can be achieved through a habit of routine goal setting, monitoring, evaluation, and resetting.

Goal setting could become an explicit and routine component of classroom activity. Having teachers participate wholeheartedly in this activity by demonstrating and modelling goal setting, monitoring, evaluating, and resetting would be a potent lesson to students on the importance of this process. Goals might primarily be academically oriented, but people could set social, sporting, or other goals as well. For some students, particularly adolescents, the social aspect of school is extremely important (Gristy, 2012), so it would make sense to include this in the goal-setting agenda.

It will undoubtedly take time out of the school day to set, monitor, evaluate, and reset goals. In the long run, however, it may save time. It is hard to think of a more direct or efficient way to promote harmonious school relationships and contented minds than to create environments in which everyone has consistent success in achieving important goals. The most satisfied and successful people in society are undeniably those people who are skilled at achieving valued goals. The more we can do to help more students become adept at this process, the more we will enhance their well-being and contribute to happier schools, communities, and societies.

Looking after staff is important too. A school that takes seriously the importance of student well-being will not be able to overlook the fact that the well-being of teachers is also important. When new initiatives are introduced, it is important that staff receive appropriate support and training. Some research in the United Kingdom, however, found that many schools had not considered training, consultation, supervision, counselling, or support for their staff as key factors in a comprehensive approach to supporting student well-being (Vostanis et al., 2013).

In order to ensure that the promotion of student well-being remains an ongoing priority, it will be important to embed periodic training, supervision, and support for staff within the program being implemented. Activities such as reflection, peer support, mentoring, professional development, and supervision (in a supportive, not managerial, sense) should be routine features on the school calendar. Given that some rural and remote schools experience high staff turnover, it is particularly important for professional support practices to be in place to assist new staff to assimilate into the ethos of the school.

Final Comments

The emotional well-being experienced by children in early life is often largely predictive of later successful functioning. Teachers play a major role—whether they are aware of it or not—in the way students learn to think about themselves and their place in the world. Many rural and remote localities have features that make them idyllic places to grow up. There are also pitfalls, however, that can be subtle yet pervasive.

We have seen that students in rural and remote locations experience psychological distress to the same extent as students in urban settings. Access to services, however, is often compromised in rural and remote areas for a variety of reasons. The central importance of connection to school and involvement in school activities can often mitigate the disadvantages of service access problems for rural and remote students.

Teaching in rural and remote locations is both a privilege and a responsibility. It is a privilege to be integrated into a rural or remote community and to experience the benefits of nonurban living. It is a responsibility to help the young people in the community develop the resilience and confidence they will need to be successful later in life. Fortunately, with the backing of a sound theory

such as PCT, it is not a difficult task, and it may have the added advantage of making teaching more rewarding and successful than it previously may have been.

A nation often depends on its rural and remote communities for food and other important resources. Rural and remote communities, in turn, depend on their youth for optimism and sustainability. And finally, rural and remote youth depend on their teachers for assistance in learning about the important things in life. Reading, writing, and arithmetic are enduringly important, but, so too are learning how to get along with others and discovering how to make the world a better place. Underpinning all of these things is the ability to set a course and head towards it. Going off course is often part of the journey, but keeping the ultimate destination in mind and counteracting deviations when they occur are skills of the most successful goal achievers. Helping rural and remote students become tenacious and persistent goal setters could be a legacy that teachers strive to foster. Today's teachers are helping to establish the emotional climate of tomorrow, so placing the well-being of our students at the forefront of our priorities is an imperative that cannot be delayed.

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Part II

Clinical and Cultural Conditions in Rural School Settings

Rural America and Evidence-Based Assessment: The Potential for a Happy Marriage

7

Alex Kirk, Rafaella Sale, and Eric A. Youngstrom

Evidence-based medicine (EBM) is a clinical practice that uses the most empirically supported methods and most current evidence in the clinical decision-making process (Sackett, Rosenberg, Gray, Haynes, & Richardson, 1996). EBM is a patient-focused, self-correcting model, intended to improve the quality of care for clients. Benefits of EBM include the following: (1) allows clinicians to utilize updated research in decision making; (2) improves efficacy and efficiency for treatment provision; (3) decreases the use of ineffective or untested methods; (4) informs both clinician and client about the best treatments by utilizing publicly available information on different treatment routes; and (5) provides an empirical basis for constructing health-care policy (Romana, 2006).

In the field of mental health, this surge in EBM promotion pushes for the application of both evidence-based assessment (EBA; Hunsley & Mash, 2007; Youngstrom, 2013) to enhance treatment guidance and empirically supported treatments (EST; Chambless & Hollon, 1998; Southam-Gerow & Prinstein, 2014) to ensure that the chosen approaches have been empirically validated. This chapter focuses on EBA for rural settings while seeking to integrate the guidelines of EBM with traditional psychological assessment through a client- and test-centered approach. Given the lack of literature geared for rural settings, this chapter partly uses a "lessons learned" approach gained through the authors' real-world experiences while still providing an empirical rationale for EBA.

The benefits of adopting an EBA approach to diagnosis are substantial. Based upon multiple studies examining decision-making skills in diagnosis with real clinicians, obtaining an accurate diagnosis is significantly more likely when working through the EBA approach than when relying solely upon clinician judgment (Ægisdóttir et al., 2006; Dawes, Faust, & Meehl, 1989; Jenkins, Youngstrom, Washburn, & Youngstrom, 2011; Meehl, 1954). Data collected through intake or subsequent sessions are used more efficiently and objectively than when we impressionistically interpret the same information. The EBA approach reduces a clinician's tendency to over-interpret cues of risk in ways that often lead to over-diagnosis of disorders

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(Croskerry, 2003; Gigerenzer, 2002; Jenkins et al., 2011). Lastly and most importantly for academic and community settings alike, using this type of conscientious approach to diagnosis is not only economical but also more feasible. Once it becomes habit, this method saves already overscheduled clinicians' valuable time (Straus, Glasziou, Richardson, & Haynes, 2011; Youngstrom, Choukas-Bradley, Calhoun, & Jensen-Doss, 2014). For these reasons, the EBA approach is a commonsense model to overcome some of the difficulties faced in rural settings.

Rurality is difficult to define, and often those unfamiliar with rural settings mistakenly believe that all are identical. More individuals are living at or below the poverty level in rural areas, and there is less access to specialized medical and mental health services, including psychological care (Owens, Watabe, & Michael, 2013; Slama, 2004). Instead of these barriers thwarting the eventual existence of EBA within the rural setting, these issues clearly define more reason to employ the method. Rural areas need a simple diagnostic approach that saves money and time, increasing diagnostic validity and, in turn, accurate treatment selection.

An Introduction to Evidence-Based Assessment

EBA seeks to calculate the probability of a diagnosis when forming decisions concerning further assessment or initiation of treatment (Straus et al., 2011). Each client has a single probability of having a given diagnosis lying on a continuum between 0 and 100%. There are two thresholds that divide the continuum into three major zones of clinical action. EBA refers to these thresholds as the wait-test threshold and the test-treatment threshold (Straus et al., 2011; Youngstrom & Frazier, 2013; see Fig. 7.1). Finding the probability of a diagnosis below the wait-test threshold suggests that a diagnosis can be ruled out with confidence, while a probability estimate of a diagnosis above the test-treatment threshold suggests that a diagnosis can be confidently assigned, and treatment tailored to that diagnosis or diagnoses can begin (Straus et al., 2011).

Determining where to set these thresholds requires clinical judgment based on the risks and benefits associated with a diagnosis or lack of a diagnosis (Youngstrom, Jenkins, Jensen-Doss, & Youngstrom, 2012). For example, clinicians may decide that if the probability of a diagnosis is 30% or below, then the odds of a client having the diagnosis in question are sufficiently low to cease further assessment. Thus, 30% would signify the wait-test threshold. Conversely, the clinician may decide that if the probability of a diagnosis is 80% or higher, then the odds of a client having the diagnosis in question are sufficiently high to start treatment. Here, 80% would signify the test-treatment threshold. So long as the client is above 30% and below 80%, further testing may resume. Once the client reaches 30% or lower, or 80% or higher, then the appropriate action can be taken (i.e., discontinue further assessment or initiate treatment, respectively). These numbers are not official suggestions, as they will vary from one diagnosis to

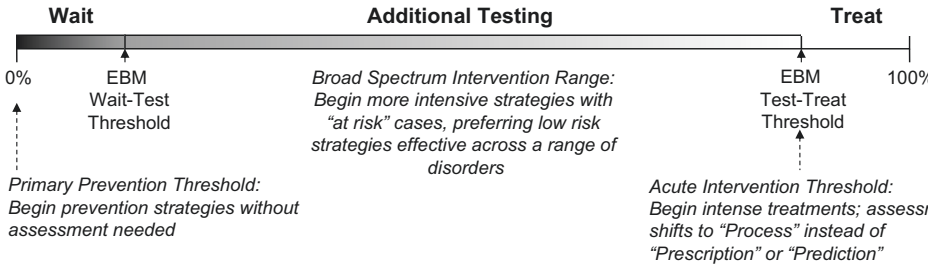

Fig. 7.1 The decision continuum with three major zones of clinical action divided by the wait-test threshold and the test-treat threshold. *Note:* This is not drawn to scale, and determining where the thresholds are to be placed will vary depending on the client

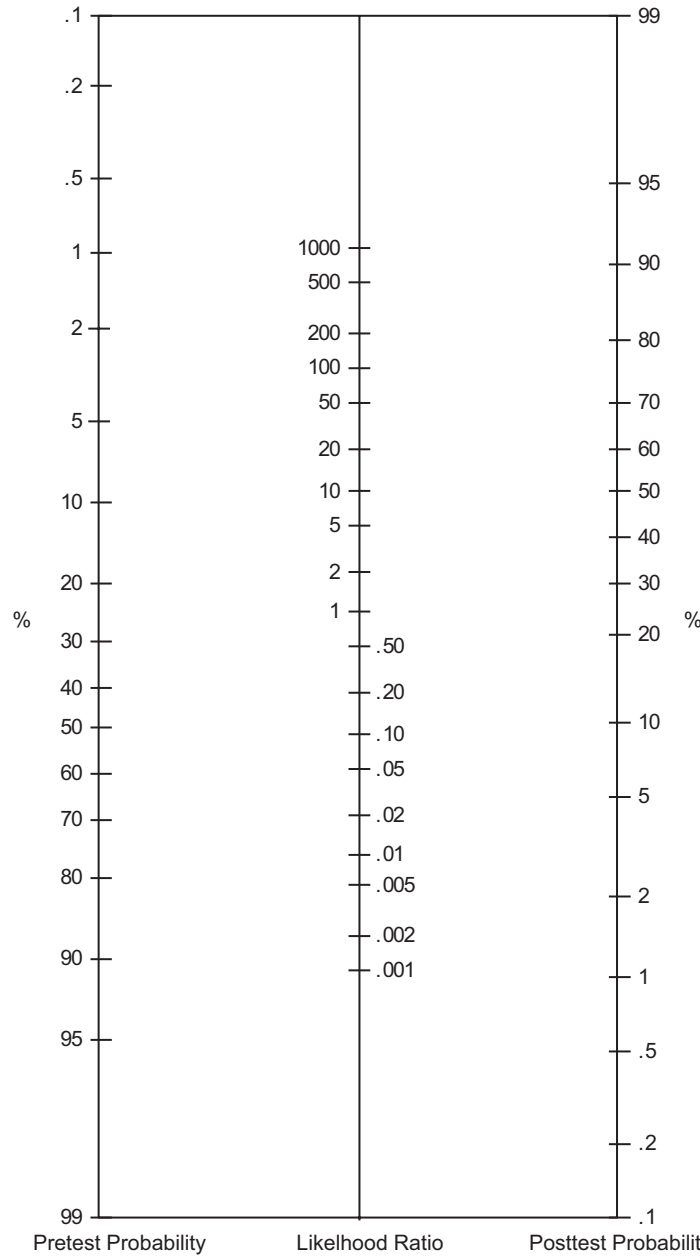

Fig. 7.2 Probability nomogram for combining prior probability with risk factors and test results. See Jenkins et al. (2011) for a detailed example of using the nomogram with a clinical case

the next. In the case of treatments where a risk of harm is minimal (e.g., exposure therapy for panic disorder; Olatunji, Deacon, & Abramowitz, 2009), then the test-treatment threshold may be lower relative to disorders where there is a greater risk of harm (e.g., those requiring high doses of psychiatric drugs that carry significant adverse effect risks).

How does a clinician figure out these probabilities for each case? New approaches take care of all the algebra for us. A paper tool called a "probability nomogram" turns this into an exercise in connecting the dots (Youngstrom, 2013; see Fig. 7.2). The base rate of a disorder within a clinical setting is a good starting probability for a client before we integrate other information we have learned about them (Meehl, 1954). This base rate goes on the left-hand line of the nomogram. Factors such as high scores on diagnostic

measures increase the probability of a specific diagnosis. The change in probability for a diagnosis is known as a diagnostic likelihood ratio (DLR). DLRs go on the middle line of the nomogram. For example, an externalizing *T* score of 81+ on the Child Behavior Checklist (CBCL; Achenbach & Rescorla, 2001) increases the odds of a bipolar disorder diagnosis by 4.3-fold for adolescents when compared to all other presenting problems at an outpatient clinic (Youngstrom et al., 2004). Looking at the nomogram in Fig. 7.2, an individual might have started with a 2% chance of a bipolar diagnosis according to the base rate in the general population (Van Meter, Moreira, & Youngstrom, 2011); we then move across the nomogram by lining the pretest probability at 2%, the likelihood ratio (middle column) at 4.3, and then ending with a revised posttest probability of about 7–8%. With each new source of data for a given client, we revise this probability. Each updated probability can be used as the new pretest probability when more data and subsequent DLRs are attained, highlighting the potential value of multiple sources and reporters of information, such as base rates, risk factors, self-report measures, teacher or parent report measures, and diagnostic interviews. There also are apps for smartphones and web pages that will do the calculations, but the nomogram provides a visual reference that can be engaging to use in session, with the client and clinician exploring "what-if" scenarios and discussing whether more assessment would be helpful for answering the client's questions.

The general model of an EBA battery includes broad measures, brief screeners specific to certain diagnoses, self-report measures, other-report measures (i.e., parents, teachers), and structured interviews (Youngstrom, 2013). The battery promotes the use of multiple sources of information spanning multiple syndromes (De Los Reyes, Thomas, Goodman, & Kundey, 2013). Clinicians are encouraged to adopt a similar approach within their own settings based on local referral patterns, demographic and cultural factors, along with individual client needs.

In order to calculate the most accurate probability of a diagnosis, the application of a step-by-step process within an EBA framework is essential (Youngstrom, 2013). These steps can be viewed in four stages: (1) pre-diagnosis, (2) diagnostic procedures, and (3) treatment planning, (4) all while ensuring that client preferences are taken into account along each stage. Following this process allows for multiple sources of data to be considered to fit within that framework. The overarching benefit of this framework is that it is inexpensive and simple, and requires little additional time over a standard intake protocol while greatly enhancing accuracy (Youngstrom, 2013). Table 7.1 lists the steps for EBA, elaborated upon in greater detail below, estimating the time each step requires and highlighting how a wealth of data can be collected in what many might consider to be a narrow window of time by clinical standards (i.e., between half a session and two sessions, depending on the complexity of the case). A composite case example for "Walter" will be used to illustrate this process at each stage.

Four Overarching Stages of EBA

Walter, a 14-year-old White male, was referred for school-based mental health services by his school counselor 2 months into his ninth-grade fall semester. His school counselor noticed that Walter's grades had dropped significantly from As and Bs in middle school to Ds and Fs soon into high school. Walter appears to have lost all motivation for future plans because of the difficulty concentrating he has experienced in his classes. Walter disclosed to his school counselor that he gets distracted easily in class by what others are doing around him, and that he has begun to feel insecure about participating in class. The school counselor arranges a meeting between the school-based clinician and the parents. The school-based clinician becomes concerned given that Walter's mother was diagnosed with attention-deficit hyperactivity disorder (ADHD) in middle school. Walter's parents give their consent to a psychological evaluation administered through the school.

Table 7.1 Outline of the four stages of EBA

Step	Rationale	Additional time/cost
1. Pre-diagnosis		
Identify common diagnoses	Helps to prepare necessary assessment tools for most common issues	Time: 0 Cost: 0
Know the base rate	Important starting point to anchor evaluations	Time: 0 Cost: 0
Identify risk factors	Risk factors raise "index of suspicion"—enough will elevate to assessment or possible treatment zone	Time: 2–10 min Cost: 0
2. Diagnostic procedures		
Information from broad scales	Broad externalizing/internalizing scales; self-reports; parent reports; teacher reports; low scores are less informative	Time: 0 if already part of routine assessment Cost: 0 if already part of routine assessment
Brief screens for more in-depth information	Brief family history measure adds new information; parent report for specific information pertaining to symptomatology	Time: 5 min Cost: 0—utilize instruments that are in public domain
Get multiple perspectives	Parent reports specific to diagnosis in question and to confirm change in functioning; youth and teacher reports helpful for measuring pervasiveness and motivation for treatment	Time: 5 min per informant Cost: 0—utilize instruments that are in public domain
Intensive assessment for diagnosis in question	Clinical interview focusing on specific presentation; K-SADS, MINI-KID	Time: 30–120 min Cost: 0–$4.00 for applications
3. Treatment planning		
Assessment for treatment planning	Rule out medical conditions and medications; family and school functioning, quality of life, personality, comorbid diagnoses	Time: variable Cost: variable
Process monitoring	Therapy assignments; medication monitoring; SUD ratings for exposure tasks	Time: <5 min per day Cost: 0
Progress and outcome	Repeat assessments with main severity measures—interview and/or parent report most sensitive to treatment effects	Time: 10–40 min Cost: 0
Maintenance	Review critical events and life transitions; assign ongoing therapy tasks	Time: negligible Cost: 0
4. Client preferences	Make a client a part of the process by applying his/her attitudes to adjust wait-test and test-treatment thresholds, and with treatment planning	Time: variable Cost: 0

1. Pre-diagnosis. The first stage might be viewed as a preparation stage, before any actual diagnosis begins. What are the frequent clinical issues in Walter's geographic and demographic region? Are there relevant social issues, such as general or specific substance abuse or multigenerational issues of psychopathology? Once these clinical issues and the variables surrounding them are identified, it is important to determine whether the EBA tools necessary for these common issues are available (Youngstrom, 2013). There are reviews that critically evaluate different psychological instruments and determine the evidence for their reliability and validity (Hunsley & Mash, 2008). Within this first stage it is important to note that few clinical settings will be able to maintain the resources needed to address all possible diagnoses. Prioritize the common issues, as roughly 80% of cases in most clinics will present with the same approximate 20% of clinical issues (Youngstrom, 2013). Thus, the goal ought to be maintaining the most updated tools for these more

common diagnoses. Once the most common clinical issues are identified, then your clinical setting can be more prepared to address them. Measures for rare conditions can get added to the tool kit as time, resources, and need dictate.

Base rates. Next, find benchmark base rates for conditions at clinics similar to yours (Youngstrom et al., 2012). This rate gives Walter's clinician a sense of the starting point in pursuing the proper diagnosis for Walter. If the clinician knew nothing else about him, then the base rate would be the most accurate guess as to how likely it is that he meets the criteria for the diagnosis in question (Meehl, 1954). The hypothesized diagnosis for Walter is ADHD, and so the school-based clinician will start the diagnostic process by attaining a base rate for ADHD. In the general population, the lifetime prevalence rate for moderate-severe ADHD for adolescents is ~4% (Merikangas et al., 2010); therefore, this is an appropriate starting base rate to use in examination of Walter's profile.

Determining base rates in rural settings within the scientific literature can be difficult given the underrepresentation of rural mental health research. Fortunately, prevalence rates generally tend to be similar across demographic settings (Kessler et al., 1994). Should a clinician be unable to find an accurate published base rate estimate for a specific diagnosis within his/her client population, Plan B would be to estimate the rate oneself. Dividing the number of cases with a specific diagnosis by the total number of cases reviewed provides the base rate estimate (Youngstrom et al., 2014). For example, should a clinician see 75 clients in a year, 3 of whom are diagnosed with bipolar disorder, then the base rate of bipolar disorder in this setting would be 4% (i.e., 3/75). This process takes some time to set up, but the long-term benefits of having these base rates are substantial, and updating them regularly would require simply revising the number of cases meeting a diagnosis and the number of cases reviewed in total. These rates will provide the starting point for further assessment and subsequent treatment guidance. It is important to find base rates not just for one's geographic location, but also for their actual treatment setting.

Finding base rate estimates in the literature can be done by searching various scientific databases (e.g., Medline, *PsycINFO*, PubMed, Google Scholar). Medline and *PsycINFO* are high-quality sources for psychological research, but subscriptions are expensive. PubMed and Google Scholar are free resources one can access from anywhere with an Internet connection. Before initiating a search, it would be wise to be accustomed with the syntax used with each search engine (i.e., whether quotations are required, or using "and" or "or" within the search phrase). If one is attempting to find base rates for depression, then a search consisting of the key words "depression" and "prevalence" or "epidemiology" may yield results (Youngstrom et al., 2012). Further, clinicians can change the search terms to include populations of interest (e.g., "rural") or settings of interest (e.g., "community") to narrow the results (Table 7.2).

Risk factors. Certain risk factors or clinical signs for various disorders encourage further diagnostic hypotheses after finding a base rate for the diagnosis in question (Morrison, 2006). Different risk factors can be more indicative of certain disorders, though it is important to con-

Table 7.2 Base rates for various diagnoses in different settings

Diagnosis	Setting	Base rate
Depression	Rural sample	6.1% (1)
Generalized anxiety	Rural childhood sample	1.7% (2)
Separation anxiety	Rural childhood sample	3.5% (2)
Social anxiety	General adolescent sample	1.3% (3)
Bipolar I/II	General adolescent sample	2.6% (3)
ADHD	General adolescent sample	4.2% (3)
Oppositional defiant disorder	General adolescent sample	6.5% (3)
Conduct disorder	General adolescent sample	2.2% (3)
Any substance-use disorder	General adolescent sample	11.4% (3)

Note: (1) Probst et al. (2006); (2) Costello et al. (1996); (3) Merikangas et al. (2010)

sider contextual factors such as family history of mental disorders or abuse. Generally speaking, risk factors may provide greater insight as far as what disorder the clinician ought to consider assessing. For example, clients presenting for disruptive behaviors may exhibit symptoms shared by multiple diagnoses, such as ADHD and bipolar disorder (Biederman, Klein, Pine, & Klein, 1998). However, in the event that such clients present with early-onset depression or a decreased need for sleep, then these risk factors might warrant further testing for bipolar disorder given the relative frequency that these are warning signs for bipolar disorder while having less association with ADHD (Youngstrom et al., 2012).

Clinicians can use scientific databases to determine relevant risk factors for different disorders. Some examples might include a family history, or characteristic symptom clusters. A clinician searching for risk factors associated with a diagnosis may again check the databases mentioned when discussing base rates by searching for "ADHD" (or any diagnosis of interest) and "risk factor." If searching for a specific risk factor, such as heritability, then a search consisting of "depression," "offspring," and "heritability," may narrow results specifically to heritable risk factors (Youngstrom et al., 2012). To identify a broader set of risk factors, remove the search terms relevant to heritability to expand the search. Web pages curated by the National Institute of Mental Health or the Centers for Disease Control often pull together relevant information, but the depth of coverage is uneven across disorders. Browsers let us bookmark our favorite pages and save our favorite searches, making it fast to update or tailor them (e.g., swapping "anxiety" for "ADHD"). It is an activity that fits easily in spaces created by "no shows" and cancellations, and we can share the best information with our colleagues.

Looking at Walter's possible risk factors, we learned earlier that Walter's biological mother was diagnosed with ADHD in middle school. Previous research suggests that the DLR associated with an immediate family member carrying an ADHD diagnosis is 4–5 (Faraone, Biederman, & Friedman, 2000; Faraone et al., 2000). As such, Walter's risk, starting at 4.2% as a result of the base rate of ADHD in a general adolescent population, can now be calculated to be at 11% using the nomogram in Fig. 7.2.

This first stage is not so much a task to do for a single client, but rather a way of reconfiguring our practice to work more efficiently. It may require a large amount of time up front in order to obtain a list of common reasons for referral, base rates, necessary assessment tools, and risk factors. Having these readily accessible saves an inordinate amount of time long-term as clinicians will not have to continually research these variables for every new referral, but rather every few years as such information is updated.

2. Diagnostic procedures. This second stage can be seen as the initiation of more active diagnostic procedures. Broad-scale measurement tools (e.g., Behavior Assessment System for Children, 2nd Edition [BASC-2]; Reynolds & Kamphaus, 2004) are useful in capturing a broad array of symptomatology within an individual such as Walter. Although these measures may not be highly specific to detecting specific disorders, they are useful in refining the probability of a specific diagnosis, and they can be decisive at ruling out some otherwise common possibilities. Broadly speaking, examining the internalizing and externalizing subscales helps to narrow a tentative diagnosis. For example, a high CBCL externalizing scale score will increase the odds of a diagnosis of pediatric bipolar disorder 3- or 4-fold, while a low externalizing scale score decreases the odds 20-fold (Youngstrom et al., 2004).

The benefit of utilizing broad-scale information is not solely to refine tentative diagnoses, but also to incorporate new DLRs to update the probability of the diagnosis in question more objectively. One common way of calculating a DLR uses the sensitivity and specificity of a measure (Straus et al., 2011). The *sensitivity* refers to the percentage of cases who have the disorder in question that would be correctly classified by the measure, while *specificity* refers to the percentage of cases who do not have the disorder in question and would be correctly classified as not having the disorder by the measure (Youngstrom & Frazier, 2013). These sensitivity and specific-

ity percentages can be used to calculate a DLR simply by taking the sensitivity and dividing it by the "false alarm rate" (i.e., 1—specificity). This results in a value that has a multiplicative effect on the odds of a diagnosis. DLRs below 1 suggest a reduction in the probability of a diagnosis, while a value above 1 will increase the probability of a diagnosis.

If Walter meets the criteria for ADHD, he is expected to receive high ratings on diagnostic scales devoted to attention problems and/or hyperactivity. A subscale on the BASC-2 parent report assesses for attention problems. Research has shown that a *T* score of 59.5 or higher on the attention problems subscale of the BASC-2 parent report differentiates children with ADHD from those without any disorders with a sensitivity of 93.3% and a specificity of 93.5% (Ostrander, Weinfurt, Yarnold, & August, 1998). As such, the DLR would be calculated as .933/[1 − .935] = 14.35. Thus, children with parents who indicate a *T* score of 59.5 or higher on the attention problems subscale of the BASC-2 parent report are at a 14.35-fold risk of an ADHD diagnosis relative to those without any evidence of pathology. Adding on to previous stage, this ratio would be applied to the currently existing DLR stemming from all previous steps, to then calculate a newly revised DLR taking all this data into account. Assuming that the parent form of the BASC-2 filled out by Walter's parents reported a *T* score of 60, this DLR of 14.35 can now be applied to his previous diagnostic probability of 11%. Using Fig. 7.2, Walter's revised diagnostic probability for ADHD is now between 60 and 65%.

Finding studies that report DLRs is uncommon, so it is typically a productive strategy to seek studies that report sensitivity and specificity values in order to calculate DLR by hand given the ease of calculation. Searching for such studies might include a search containing key words such as "ADHD" (or any disorder of interest) and "sensitivity and specificity" (Youngstrom et al., 2012). It is important to determine the assessment score relevant to the sensitivity and specificity percentages as sensitivity and specificity, and subsequently DLRs, shift based on scores (Tables 7.3 and 7.4). Further, it is imperative to determine whether the measure used in the study is differentiating between individuals with the specified diagnosis from those with no traces of pathology, or if the measure is differentiating between individuals with the specified diagnosis from those with some other pathology. Finally, when searching for studies reporting sensitivity and specificity values, it is important that the sample for the study contains at least ten individuals with the diagnosis and ten individuals without (Kraemer, 1992).

Brief screens. After using broad measurement tools to narrow the tentative diagnoses, the clinician ought to be gathering brief screening instruments that focus on the leading clinical hypotheses for Walter (Youngstrom et al., 2012). Looking at symptoms that might be most associated with certain disorders helps refine diagnostic probability estimates (e.g., grandiosity indicative of bipolar symptomatology). While these symptoms may not always create the greatest level of dysfunction, the goal is to find symptoms that will weaken the case for certain diagnoses while possibly strengthening others. For example, if Walter does not experience patterns of decreased need for sleep paired with excitability, the probability of the issue at hand being pediatric bipolar disorder, a diagnosis that often competes with ADHD, decreases (Youngstrom et al., 2012). The results from these brief screening devices tend to outperform the broad scales as these briefer measures will be more focused on the symptom patterns of interest. For example, Table 7.3 reports the DLRs associated with mood disorders for the CBCL—a broad scale, while Table 7.4 reports the DLRs associated with the Kutcher Adolescent Depression Scale (KADS; Brooks, 2004)—narrowly focused on depression. As a rule of thumb, comparing these DLRs suggests that the KADS may be more useful than the CBCL in detecting depression given the higher DLR (see Youngstrom, 2014 for more detail about methods for comparing tools).

In choosing a short screener to administer to Walter, the clinician chooses the Strengths and Difficulties Questionnaire (SDQ; Goodman,

Table 7.3 Diagnostic likelihood ratios for various diagnoses from broad assessments

Diagnosis	Setting	Measure	Score	DLR
ADHD	General sample	CPRSR:L (ADHD subscale)	70 (*T* score)	1.85 (1)
ADHD	General outpatient setting	BASC-2 parent form (attention problems subscale)	59.5+ (*T* score)	14.35 (2)
Anxiety (any)	Academic clinic; urban community health center	CBCL (internalizing subscale)	71–77; 78+ (*T* scores)	1.51; 2.03 (3)
Anxiety (any)	Academic clinic; urban community health center	YSR (internalizing subscale)	66–72; 73+ (*T* scores)	1.64; 2.35 (3)

Note: (1) Frazier and Youngstrom (2006); (2) Ostrander et al. (1998); (3) Van Meter et al. (2014); (4) Youngstrom (2013)

Table 7.4 Diagnostic likelihood ratios for various diagnoses from brief screening assessments

Diagnosis	Setting	Measure	Score	DLR
ADHD	General population	SDQ, hyperactivity subscale	≥6 (Raw score)	7.3 (1)
Conduct disorder/oppositional defiant disorder	General population	SDQ, conduct subscale	≥4 (Raw score)	9.1 (1)
Mania	Urban university clinics	CMRS-10, parent report	≥10 (Raw score) on CMRS	4.94 (2)
Mania	Urban university clinics	PGBI-10 M, parent report	Report 6 different DLRs; 18+ is highest	7.25 (3)
Depression	Urban/rural municipality	KADS	6; 10 (Raw scores)	3.2; 8.9 (4)
Depression	Group Health Research Institute	PHQ-9	11+ (Raw score)	3.97 (5)
Generalized anxiety	General population	GAD-7	8; 12; 15 (Raw scores)	3.8; 6.5; 8.7 (6)
Social anxiety	Midwest public schools	MASC, social anxiety subscale	8.5; 13.5 (Raw scores)	1.9; 3.43 (7)
Social anxiety	Midwest public schools	SAS-A	50 (Raw score)	2.52 (8)
Social anxiety	Midwest public schools	SPAI-C	18 (Raw score)	3.55 (8)

Note: (1) He et al. (2013); (2) Henry, Pavuluri, Youngstrom, and Birmaher, 2008; (3) Youngstrom, Frazier, Findling, and Calabrese (2008); (4) LeBlanc, Almudevar, Brooks, and Kutcher (2002); (5) Richardson et al. (2010); (6) Spitzer, Kroenke, Williams, and Löwe (2006); (7) Anderson et al. (2009); (8) Inderbitzen-Nolan et al. (2004)

1997). After calculating the results, the clinician finds that Walter scored a 7 on the hyperactivity subscale, which yields a DLR of 7.3 for ADHD (He, Burstein, Schmitz, & Merikangas, 2013). Using Fig. 7.2, we can revise Walter's odds of having ADHD from the previous probability of 60–65%, to just over 90%.

Searches for brief screeners specific to certain diagnoses can use a similar strategy to the one above. Searching for "sensitivity and specificity" specific to diagnoses of interest is the best way to do this, again with the search engines listed in previous steps (Youngstrom et al., 2012). It may be possible to include specific tools of interest within the search terms, though again this will narrow the possible pool of results. Calculating a DLR here would be no different than how it is done for broad-scale measures.

Multiple perspectives. Obtaining multiple perspectives can help to clarify the likelihood of a diagnosis (De Los Reyes et al., 2013). Parent-report measures about Walter's symptoms may add additional important information regarding the frequency and severity of the dysfunction related to reported symptoms (Carlson & Youngstrom, 2003). Teacher-report measures can inform about the pervasiveness of the Walter's symptoms into school contexts (Achenbach & Rescorla, 2001; McDermott, 1995). Specifically, the teacher can help to determine whether the Walter's symptoms are home specific or whether they occur in multiple contexts. However, a plan must be established in cases where there is disagreement among raters, as cross-informant agreement tends to be modest at best (Achenbach, McConaughy, & Howell, 1987). Savvy clinicians consider the contexts under which parent report might be more credible than self-report (Youngstrom et al., 2011). Oftentimes, making this decision may require deferring to what the literature has to say about more specific diagnoses. For example, self-report measures for internalizing disorders (i.e., depression, anxiety) are often seen as more accurate (Rothen et al., 2009), while parent or teacher reports for externalizing disorders may be more favorable, particularly for externalizing behaviors which may involve low insight, such as bipolar disorder (Pini, Dell'Osso, & Amador, 2001; Dell'Osso et al., 2002). Having less formal education or misusing substances may reduce the credibility of parent report (Youngstrom et al., 2011).

The data integration process requires caution, as it can sometimes either inflate or greatly undermine the true probability of a diagnosis. For instance, having Walter's parent fill out multiple measures, all of which are assessing the same symptoms, could inflate the estimated probability of an actual diagnosis if all of these measures were used in revising the probability of a diagnosis (Youngstrom et al., 2012). This is easy to see when using multiple, redundant measures, as the clinician would essentially be counting the same symptoms multiple times from the same reporter, treating them as though they are separate when revising the DLR.

Finding studies that look at parent- or teacher-report measures involves similar search terms to those seeking either broad-scale measurement tools or diagnosis-specific instruments (Steps 4 and 5). If a clinician knows of specific teacher or parent forms of interest, then those terms can be included within the search to try and find those specific instruments. Further, including broad terms such as "parent" or "parent report" may be of use.

Similar to the first stage, finding studies which report sensitivity and specificity figures for different measures and having them readily available save clinicians a great deal of work in the future despite requiring an up-front investment of time. A clinician can create a list of DLRs associated with different measures (e.g., Tables 7.3 and 7.4), and, upon scoring the various measures given to a client or other informants, determine whether any of the results will yield a DLR. Again this highlights that, once these numbers (i.e., base rates, risk factors, DLRs for various measures) are obtained, the EBA process moves fluidly and adds little to no additional time beyond a typical intake while greatly enhancing accuracy.

Intensive assessment. At this point, the clinician ought to be seeking to finalize the updated tentative diagnosis with more rigorous assessment measures. As such, the use of a structured clinical interview may be seen as a more individualized, intensive diagnostic assessment tool. Such interviews will help the clinician to rule out diagnoses that do not fit Walter's presenting symptoms which are primarily externalizing in nature while strengthening the case for diagnoses consistent with reported symptoms. Structured interviews with sound psychometric properties include the Mini-International Neuropsychiatric Interview for Children and Adolescents (MINI-KID; Sheehan et al., 1998) and Kiddie Schedule for Affective Disorders and Schizophrenia (K-SADS; Kaufman et al., 1997). These interviews are separated into different diagnostic sections, allowing the clinician to only assess specific diagnostic syndromes (e.g., anxiety disorders, mood disorders), though it would be considered more thorough and complete to assess for all diagnoses given the risk of comorbidity,

as is common for child and adolescent psychopathology (Costello, Mustillo, Erkanli, Keeler, & Angold, 2003).

Often clinicians shy from using structured interviews for fear that clients dislike them, rapport will be damaged, reimbursement will be impossible, or professional autonomy will be constrained. Interestingly, all of these concerns lack empirical validity, as client surveys suggest that they appreciate the thoroughness of structured interviews without feeling a loss in rapport (Suppiger et al., 2009), Medicaid and other insurance companies will reimburse for diagnostic interviews (Youngstrom et al., 2014), and semi-structured interviews still allow for clinical judgment supported by thorough data (Axelson et al., 2003; Kaufman et al., 1997).

Walter is given a MINI-KID to confirm ADHD while ruling out other possible diagnoses. The results lend more support to the proposed diagnosis of ADHD while ruling out other possible competing diagnoses (e.g., bipolar disorder). At this point Walter has roughly a 90% probability of having ADHD, in addition to convergent support from the MINI-KID. Based on the test-treatment threshold chosen by Walter's parent, this probability may be sufficient to begin treatment with the confidence that Walter is in fact struggling with ADHD.

3. Treatment planning. After establishing a diagnostic formulation, EBA shifts to measuring Walter's functioning as well as factors that could moderate treatment selection or response. Such information includes medical history, past or current use of medications, comorbidities, and academic and social functioning. Any potential medical rule-outs need to be clarified at this point assuming that they have not been addressed previously (Youngstrom et al., 2012). Relational and systemic factors such as family functioning and presence of high-expressed emotion will often alter treatment approach (Cicchetti & Toth, 1998; McClellan, Kowatch, & Findling, 2007). Measures tailored to address functionality and quality of life can help the clinician to tailor treatment not solely towards symptom reduction, but also towards greater functioning amidst the presence of symptomatology. One such measure is the KINDL-R (Bullinger et al., 2008).

The rural setting itself may be a moderator of validity for both assessment and treatment. Rural areas have been known to exhibit heightened stigma against mental health services and diagnoses of psychopathology in general (Owens et al., 2013). Placing a diagnostic label on a person seeking services may not be necessary for treatment gains. Thoughtful clinicians use personal judgment informed by research on mental health stigma in regard to this issue, and seek supervision if necessary when deciding whether and how to share diagnostic information with the client or other involved parties.

Pharmacological treatment in addition to psychosocial intervention will often be a part of the treatment plan, especially with more chronic and debilitating syndromes. If this is the case, be prepared as a clinician to act as a "stop-gap" entity, providing treatment while the client is placed on a waiting list for psychiatric care. The availability of psychiatrists within rural settings, particularly those specialized for children and adolescents, is astoundingly low (Gamm, Stone, & Pittman, 2008). Complicating matters and prescription abuse and misuse can be significantly greater in rural settings compared to more urban areas (Anderson, Neuwirth, Lenardson, & Hartley, 2013). Clients may feel as though medication is the only option for symptom relief; therefore, extra attention spent in early intervention while planning for the most impairing symptoms may set up hope and motivation for the treatment process.

Assuming that connections have not already been made, clinicians in a rural setting ought to use this step to create connections within the local community. Given the lack of mental health resources in rural settings, knowledge of the existing or surrounding resources (e.g., safe houses, food banks), nonprofit organizations (e.g., boys and girls clubs), religious support, in addition to other main leaders within the community is imperative for comprehensive care (Owens et al., 2013). Further steps within the EBA framework assume that treatment is under way.

Process monitoring. Once treatment has been initiated, the clinician is encouraged to shift from treatment implementation to treatment monitoring, tracking progress being made towards the client's goals. Ongoing assessment of symptom severity can help the clinician objectively examine the progress being made towards the decided outcome. Measuring changes in severity and defining treatment targets are associated with better therapeutic outcomes (Finn & Tonsager, 1997; Lambert et al., 2006; Poston & Hanson, 2010). Brief screeners or checklists specific to different diagnoses are sensitive to treatment effects (West, Celio, Henry, & Pavuluri, 2011; Youngstrom et al., 2013), and/or brief screeners with broad coverage in order to determine functionality across multiple symptom syndromes, such as the YOQ-30. Progress monitoring helps define the starting point for therapy, along with both short- and long-term goals.

The outcome battery used to measure treatment gains can be brief because it concentrates on the key diagnoses and dimensions of the case formulation and can omit the conditions that were initially in contention but ruled out. The battery should assess current symptom severity for the principal diagnosis. Combining information from multiple sources, which might include parent or teacher scales, will help to gain greater insight into the generalizability of improvement across multiple contexts (Youngstrom et al., 2013). It is rarely necessary to readminister a semi-structured interview to confirm the loss of a diagnosis outside of a research protocol. On the other hand, if a client fails to make expected gains, or if they show new problems, then the assessment strategies from earlier steps could be helpful in revising the diagnoses and formulation.

Progress and outcome. At the end of treatment, measures should be readministered to determine the level of progress over the course of therapy. The outcome battery usually will be a shorter version of the initial, pretreatment battery, and this step can look similar to process monitoring. It should assess current symptom severity for the principal diagnosis, along with related syndromes. Similar to before, combining information from multiple sources will help to gain greater insight into the generalizability of improvement across multiple contexts (Youngstrom et al., 2013).

Using a Reliable Change Index (RCI; Jacobson & Truax, 1991) is especially helpful in tracking progress between pre- and posttreatment assessment scores. The RCI is a statistical method to determine whether a client has experienced meaningful change over the course of treatment. In order for a client to be classified as experiencing meaningful change, two criteria must be met: (1) the client must begin treatment with a level of symptomatology within a clinical range and then end treatment in a subclinical range, and (2) the amount of change that occurs must be sufficiently high to suggest that it cannot be attributed to random fluctuations in symptoms (Jacobson & Truax, 1991). For example, a score of 29 on the YOQ-30 has been established as the clinical cutoff, where scores 29 or higher are deemed clinical, and those below 29 are subclinical (Burlingame et al., 2004). Further, the amount of change on the YOQ-30 that must occur between pre- and posttreatment scores to qualify as reliable change is 10 (Burlingame et al., 2004). To illustrate RCI in the case of the YOQ-30, a client who starts treatment with a score of 40 and ends treatment with a score of 20 would have shown meaningful change as treatment started with a clinical score and ended with a subclinical score, and the amount of change between pre- and posttreatment scores is greater than 10. In this case, the client would be considered "recovered" (Jacobson & Truax, 1991). If this same client were to end with a score of 30 (i.e., a clinical score), then the client would have still exhibited a sufficiently large amount of change in scores where we could confidently say that they are not due solely to random fluctuation. In this case, the client would be "improved" and not yet "recovered" as the posttreatment score remains clinical (Jacobson & Truax, 1991). RCI can be calculated for most measures, often based on the data within the manual (see Jacobson & Truax, 1991 for a more in-depth explanation on how to calculate RCI).

Maintenance. Relapse prevention is a common goal for many disorders. As such, the final step of the EBA system focuses on preventing relapse via long-term monitoring of treatment gains and environmental triggers. This might entail specific tasks the individual can complete on a semi-regular basis, or it might incorporate occasional follow-up sessions, or a combination of both (Youngstrom et al., 2012). For example, generalizing exposure tasks over long periods of time and across multiple contexts helps to offset spontaneous recovery or renewal effects, even if these tasks are initiated after the client reaches subclinical symptomatology (Craske et al., 2008). As such, even after a client can be considered in remission for an anxiety disorder, it would be wise to schedule monthly or bimonthly sessions to continue with exposure tasks over a longer period of time, generalized to new contexts.

4. Client preferences. Each patient will seek treatment with preconceived attitudes which will influence engagement in the assessment and therapeutic process. These attitudes and preferences can be used to adjust the wait-test and test-treatment thresholds. For example, parents of a child who want to be certain of a bipolar disorder diagnosis before initiating a pharmacological regimen may suggest a higher test-treatment threshold, requiring that the estimate of probability for such a diagnosis be 80% or higher. Conversely, a client suspected of having depression who is eager to initiate treatment may suggest a lower test-treatment threshold, requiring that the estimate of probability for such a diagnosis be 60%. In both cases, the client's attitudes help to formulate a cost-benefit analysis which the clinician can then apply to all data attained from the EBA process. After the most accurate DLR is calculated for a given client, both clinician and client can determine together whether the estimated probability of a diagnosis is sufficiently high to initiate treatment, along with the type of treatment that would be pursued, or whether the client would prefer to postpone any psychological treatment.

Early on in the process, Walter's parents decide to set the wait-test threshold at 20%, and the test-treatment threshold at 80%. As such, assessment can continue until the school-based clinician reaches a probability for a diagnosis that is at or outside of this range, where 20% is a sufficiently low probability where Walter's parents are comfortable with him no longer pursuing assessment, and 80% is sufficiently high where they can feel comfortable that he probably has ADHD and treatment can begin.

Conclusion

Evidence-based assessment provides a framework that combines the best available evidence with the individual needs of the client. Once this framework is installed in a clinical practice, it adds little or no time or expense to working with clients, and over the long run it actually can lead to substantial savings in terms of avoiding unnecessary testing, preventing over-diagnosis, misdiagnosis, and missed diagnoses, leading to better treatment matching and ultimately better outcomes. Using an EBA approach in some ways is a natural fit with work in rural mental health, because the challenges of working in rural settings require a pragmatic attitude that repeatedly asks not just "What works?" but also "What could work here, for this person, with the available resources?" The principles and habits of EBA are practical and client centered in a way that is well suited to the rapidly changing realities of work in rural settings.

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8 Effective Assessment and Intervention for Children with ADHD in Rural Elementary School Settings

Alex S. Holdaway, Verenea J. Serrano, and Julie Sarno Owens

Attention-deficit/hyperactivity disorder (ADHD) is the most commonly diagnosed neurobehavioral disorder of childhood, with reports indicating that almost one in ten children between the ages of 4 and 17 have been diagnosed with ADHD at some point in their childhood (Visser et al., 2014). Thus, it is likely that every classroom will include one to two children with the disorder. Although ADHD is associated with impairment in a number of domains, impairment in the school setting is often a primary reason for referral to services. Students with ADHD often exhibit behaviors that are counterproductive to academic success, including hyperactive and impulsive behaviors that often lead to difficulty following classroom rules and procedures, and inattention that often leads to difficulties organizing materials, acquiring academic content, and completing work accurately (Abikoff et al., 2002; Atkins, Pelham, & Licht, 1985). In addition, children with ADHD experience interpersonal conflict with peers (Hoza, 2007) and teachers (Greene, Beszterczey, Katzenstein, Park, & Goring, 2002) and have higher rates of grade retention, placement in special education, school dropout, and suspensions and expulsions relative to same-aged peers (Barkley, Fischer, Edelbrock, & Smallish, 1990; Loe & Feldman, 2007). Children with ADHD also commonly present with comorbid learning disorders that contribute to academic difficulties, beyond those that might be expected from ADHD alone (Kessler, Chiu, Demler, & Walters, 2005). Taken together, the symptoms and impairment exhibited by children with ADHD create a significant need for services in the school context and high-quality assessment and intervention to curtail potential negative outcomes.

The symptoms and impairment associated with ADHD are significant for affected students, families, and schools in all geographic and sociodemographic contexts; however, in this chapter, we focus on those issues that arise when assessing and treating ADHD in a rural school context. One way in which school services for children with ADHD may be improved is by examining the fit between evidence-based assessment and intervention strategies and specific contextual settings (e.g., Lyon et al., 2014). Because setting characteristics have the potential to contribute to differences in the effectiveness of assessment and intervention strategies, study of these characteristics and adaptation of assessment and intervention strategies is warranted. Although there is considerable heterogeneity across rural communities with regard to demographic, economic, and cultural characteristics, we focus on the challenges that are common

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among many rural areas and that may affect the application of evidence-based services for children with ADHD.[1] Such challenges include high rates of poverty, stigma associated with mental health services, limited access to services, and a limited number of providers in rural communities (see Smalley et al., 2010 for a review).

Challenges associated with rural settings, coupled with the aforementioned issues associated with ADHD in the school setting, may place students with ADHD in rural school districts at increased risk for negative outcomes. Therefore, providing high-quality assessment and intervention for students with ADHD in rural elementary school contexts is critical for maximizing the students' potential for positive outcomes and educational attainment. In this chapter, we describe evidence-based assessment and intervention strategies for ADHD and offer recommendations for surmounting challenges to their application in rural settings. To create a context for this discussion, we first briefly describe the rural context, as well as two school-based service provision frameworks in which evidence-based assessment and intervention strategies for ADHD may be applied.

Rural Context

School mental health professionals (SMHPs; i.e., school counselors, school social workers, school psychologists) working in a rural setting encounter a unique set of circumstances and considerations (see Owens, Watabe, & Michael, 2013). First, national survey data indicate that 22.9% of children in rural areas live in poverty, compared to 17% of children living in urban areas (US DHHS, 2005). For children, living in a low socioeconomic status (SES) family is associated with higher risk for a range of negative outcomes, including developmental delays, academic and cognitive difficulties, and medical and mental health problems (Evans, 2004). Thus, children with ADHD living in low SES families may face multiple challenges in addition to those associated with ADHD that place them at increased risk for negative outcomes. These additional risk factors add complexity to the assessment and treatment process for SMHPs. Further, lower SES has been associated with lower rates of family participation in treatment (Cunningham et al., 2000) and treatment program completion (Fernandez & Eyberg, 2009), as well as poorer treatment response (Rieppi et al., 2002). Second, several studies document that stigma related to mental health issues may contribute to lower rates of family engagement in services (Owens, Richerson, Murphy, Jagelewski, & Rossi, 2007; Pullmann, VanHooser, Hoffman, & Heflinger, 2010). Families in rural areas may also feel as if help should be sought within the extended family, rather than from an "outsider," or someone unknown to the family. Third, rural living creates challenges with regard to accessing mental health services. The large geographic areas and low population densities coupled with a lack of public transportation that are characteristic of rural settings can complicate receipt of care. Fourth, compared to urban areas, rural areas also have lower rates of community and school-based mental health professionals per capita (Slade, 2003), with 57–76% of rural counties designated as mental health-care shortage areas (Merwin, Hinton, Dembling, & Stern, 2003). Thus, there may be few SMHPs in rural school districts; consequently their responsibilities may be stretched across multiple school buildings and students. The high workload may limit the SMHP's ability to provide services to students in need; to consult with teachers, caregivers, or community-based providers; and to pursue professional development opportunities. As a result, children in rural communities may have fewer options for general and specialized mental health care and for school-based mental health care compared to urban children. The above contextual issues and considerations interact to affect how assessment and treatment for ADHD are conducted in rural school settings. In the next section, we review two school-based service delivery frameworks in which evidence-based services for ADHD may be applied.

[1] In addition to reviewing literature, the recommendations and experiences included herein are written from the point of view of authors located in the Appalachian region (Southeastern Ohio) of the United States.

School-Based Service Delivery Frameworks

In addition to considering issues specific to the rural context, it is important to consider how service delivery frameworks used by school professionals guide the provision of academic and behavioral support services for students. For example, a system that identifies students in need of additional services via teacher referral may need different supports (e.g., training for teachers to identify mental health issues of childhood) than a system that utilizes standardized universal screening procedures (e.g., scoring programs and training in interpreting screening data output). As such, before discussing the application of evidence-based assessment and intervention strategies for students with ADHD in the rural school setting, we highlight two frameworks in which such strategies could be applied: response-to-intervention (RtI; Brown-Chidsey & Steege, 2010) and the life course model (Evans, Owens, Mautone, DuPaul, & Power, 2014).

Increasingly, schools are adopting a multi-tiered RtI approach to guide service provision decisions (Brown-Chidsey & Steege, 2010). To date, there is limited evidence regarding the implementation of RtI with students with ADHD; however, preliminary implementation frameworks are emerging (e.g., Vujnovic, Holdaway, Owens, & Fabiano, 2014). An RtI framework is designed to (a) utilize practices to identify students based on risk, as opposed to deficit, resulting in the early identification of students who are at risk to struggle; (b) provide high-quality supplemental instruction or behavioral support to mitigate risks as soon as difficulties are noted; and (c) use data-driven progress monitoring tools to determine a child's response to intervention and need for additional intervention. Further, an RtI framework can be applied to both academic instruction and behavioral supports (see Table 8.1). An RtI approach for students with ADHD should include the use of a universal screening tool that assesses risk for ADHD (Tier 1) and serves as a pre-intervention baseline, as well as the application of evidence-based universal classroom management strategies (see Epstein, Atkins, Culinan, Kutash, & Weaver, 2008 for review). After students have been identified as at

Table 8.1 Response-to-intervention (RtI) approach for academic and behavioral programming

	RtI component	RtI for academics	RtI for behavior
Tier I	Assessment: universal screening	Brief fluency-based measures administered directly to the student	Behavioral rating scales/direct classroom observations/office discipline referrals/ attendance rates/tardiness
	Universal programming	Research supported core curriculum	Evidence-based classroom management practices and school-wide behavioral supports
Tier II	Assessment: progress monitoring	Monthly or bimonthly brief fluency-based measures administered directly to the student	Direct observations/daily progress reports (e.g., daily report cards [DRC], daily progress reports [DPR]), monthly review teams
	Targeted intervention	Supplemental instruction delivered to a small group of students in the general education classroom	Modifications or extensions of existing behavioral support strategies that can be implemented in the general education classroom
Tier III	Assessment: intensive progress monitoring	Weekly administration of brief fluency-based measures administered directly to the student	Direct observations/daily progress reports (e.g., daily report cards [DRC], daily progress reports [DPR]), monthly review teams
	Individualized intervention	Individualized academic interventions and/or more restrictive learning placements	Individualized behavior support plans and/or more restrictive placements based on functional behavioral assessment data

Note: This table is reproduced from Vujnovic et al. (2014) with kind permission from Springer Science and Business Media

risk, data collection on their response to universal classroom management strategies should guide decisions about the provision of more individualized (Tier 2) or special education (Tier 3) services. In a rural setting, where there may be increased stigma associated with the need for services, utilizing a data-based decision-making framework that reduces subjectivity may be an attractive option. In our own experience, we have found that sharing concrete data about concerning child behavior (e.g., "Walt was out of his seat seven times per day over the last week; the screening tool shows that Walt demonstrates symptoms of ADHD significantly more frequently than other children his age") rather than more subjective reports (e.g., "Walt's teachers report that he is disruptive to the classroom") results in better caregiver and teacher receptivity to considering additional services for the child.

The life course model of care (Evans, Owens, et al., 2014) is a framework that prioritizes the mental health services that are most likely to enhance the development of the skills needed to become an independently functioning adult. Service decisions are guided by a systematic, sequenced approach that prioritizes interventions with the greatest impact on long-term (rather than short-term) outcomes. This framework can be used in combination with a three-tiered RtI framework (see Evans, Rybak, Strickland, & Owens, 2014 for discussion). The life course model is comprised of four layers that are meant to be considered in a sequenced and additive fashion, as well as nine principles of service delivery (Evans, Rybak, et al., 2014). Layer 1 involves assessing the environments in which the child lives (home) and learns (classroom) and providing services as needed to maximize the likelihood that those environments will meet the child's basic needs (e.g., nutrition, sleep hygiene, physical and emotional safety) and promote healthy development. For example, food insecurity may be a problem for a family living in poverty. Lack of food and proper nutrition can affect a child's ability to concentrate at school and make appropriate developmental gains. Thus, strategies in Layer 1 could involve connecting the family with a local food pantry or helping the child's family enroll in programs that provide supplemental food over the weekend.

In Layer 2, the child's primary impairments are identified, psychosocial interventions are implemented, and response to intervention(s) is evaluated. During this process, Layer 1 services should be continued if indicated. Layer 2 interventions could include home-based or school-based services, may involve one or multiple service providers, and could vary in intensity depending on the severity of the behavior. The child's response to the implemented intervention is an important aspect of Layer 2 because services may be adapted or changed within Layer 2 if no response is observed to a given intervention. The rationale behind prioritizing psychosocial interventions before pursuing pharmacological intervention (i.e., Layer 3) is to maximize the provision of services that emphasize *building skills* in the student with ADHD before implementing alternative services (i.e., medication or reducing academic or behavioral expectations via school modifications). Further, there is evidence that parent engagement in psychosocial services is higher when psychosocial interventions are used before pharmacological intervention, relative to when pharmacological intervention is used before psychosocial intervention (Pelham et al., 2008). Layer 3 involves the use of pharmacological intervention in combination with Layer 1 or 2 services. For some children, combined behavioral and pharmacological intervention maximizes success (Swanson et al., 2001), and for other children, this combination produces the same outcomes as medication alone, but enables the child to achieve success in the environment at a lower dose of medication (Carlson, Pelham, Milich, & Dixon, 1992; Fabiano et al., 2007; Pelham et al., 2014). Further, medication may ameliorate some symptoms that are not addressed by psychosocial interventions (MTA Cooperative Group, 1999). For a SMHP in a rural school district, Layer 3 may involve providing education about medication to caregivers, connecting them with a physician with expertise in treated ADHD, and collaborating with the physician and family to maximize compliance and assess response to combined interventions.

Lastly, Layer 4 involves providing accommodations to help the child complete or participate in academic activities with same-aged peers (see Harrison, Bunford, Evans, & Owens, 2013, for review of the state of the science on accommodations). Strategies applied in Layer 4 could include reading tests aloud to the child or reducing the amount of work required. The life course model is designed to prioritize skill development (e.g., practicing effective note-taking) rather than simply reducing expectations (e.g., providing notes to the child). However, some children may need expectations altered (i.e., Layer 4) while they are developing skills through the application of the interventions provided in Layers 1 and 2 or may require accommodations following an inadequate response to Layers 1, 2, and 3. Now that readers understand the context of rural communities and two service delivery frameworks, we discuss evidence-based assessment and intervention strategies for ADHD and their application in these contexts.

Evidence-Based Assessment

Currently there are no identified biomarkers (e.g., genetic markers, brain structure abnormalities, blood-based proteins) that can be used to validly and reliably diagnose ADHD. As such, evidence-based assessment of ADHD involves clinical decision making based on evidence gathered via an interview with the caregivers, completion of standardized rating scales by adults in multiple settings (e.g., home and school), and examination of permanent products (e.g., report cards, discipline reports, developmental records; Pelham, Fabiano, & Massetti, 2005). In many cases a child's clinical diagnosis may be made by a professional external to the school district; however, there are a number of assessment activities that fall under the purview of school professionals that are equally critical to effective identification and intervention of ADHD (Ogg et al., 2013). These assessment activities include proactive screening for mental health problems, providing school-based information to the community mental health provider who is conducting the diagnostic evaluation, and monitoring the child's response to intervention over time.

Screening

Early identification of students likely to exhibit inattentive and disruptive behavior and academic risk factors (e.g., low work productivity, failing grades, or poor performance on standardized testing) offers the potential for early intervention to enhance the likelihood of positive outcomes (Walker et al., 2009; Webster-Stratton, Rinaldi, & Reid, 2010). Teachers are valuable informants of student symptoms and behavior. However, individual teachers have different thresholds for behaviors that warrant a referral for services, and a sizable minority of teachers may not refer children for services because they feel that it is not part of their role, or feel uncomfortable or unqualified to do so (Reinke et al., 2011). In contrast, using universally administered teacher screening procedures ensure that all children are reviewed, reducing the likelihood that children in need go undetected or unreferred (Eklund & Dowdy, 2013). This is particularly important for children whose presentation is primarily inattentive (rather than hyperactive or impulsive), as identification via teacher referral may occur later or not at all, given the limited disruptions and stress that this type of child may create in the classroom.

Given the stigma associated with mental health issues in rural communities, school professionals are encouraged to insert screening tools into natural transition points that already include assessment opportunities (e.g., school readiness assessments at kindergarten entry; Owens et al., 2014). Screening at critical school transitions may address many of the aforementioned challenges in rural communities. Further, screening of social and behavioral functioning, in addition to the traditional screening for academic readiness (literacy skills) and health (vision and hearing), provides school professionals with a profile of functioning across multiple domains for each child, a better understanding of the needs across the entire student body, and the opportunity to

allocate limited resources accordingly based on problem severity. Lastly, screening at natural school transition points may reduce stigma associated with the assessment process and offers SMHPs the opportunity to educate caregivers about their child's strengths and weaknesses and the importance of multiple domains of functioning in achieving school success. There is preliminary evidence that such communication may facilitate caregiver engagement in service seeking in rural communities (Girio-Herrera & Owens, 2011).

For many rural school districts, the cost of many screening systems may be prohibitive. However, a number of free screening instruments that include scales directly related to ADHD symptoms and/or impairment are available, including the Disruptive Behavior Disorders rating scale (Pelham, Gnagy, Greenslade, & Milich, 1992), the Strengths and Difficulties Questionnaire (Goodman, 1997), and the Impairment Rating Scale (Fabiano et al., 2006), all of which have emerging evidence for their use as a screening tool upon kindergarten entry in a rural school district (Girio-Herrera, Dvorsky, & Owens, 2014; Owens et al., 2014).[2] Once a student has been identified via a universal screener, school teams should consider the need for a more comprehensive evaluation and application of early intervention strategies, such as service decisions and strategies in Layers 1 and 2 of the life course model and in Tier 2 of the RtI framework.

Diagnostic Assessment

The SMHP may conduct a diagnostic evaluation for ADHD or may refer the family to an external provider for such an assessment. Either way, evidence-based assessment for ADHD includes gathering information from the student's caregivers, primary teachers, and school records (Pelham et al., 2005). Gathering data from multiple informants and in multiple contexts is critical, as caregiver and teacher reports of the presence and severity of symptoms and impairment often differ based on context-specific behavior and impairment (Achenbach, McConaughy, & Howell, 1987).

Gathering data from school-based informants may be particularly important in rural areas as caregivers may be less informed about their child's school-based behavior and functioning than urban or suburban caregivers. Namely, in studies examining how families interact with schools in rural settings as compared to urban settings, caregivers in rural communities demonstrate lower rates of communicating with their child's teachers, attending caregiver-teacher conferences, and talking with their child about school programming, as well as higher rates of dissatisfaction with their school-based interactions (McBride, Bae, & Wright, 2002; National Center for Education Statistics, 2007; Prater, Bermudez, & Owens, 1997). Therefore, compared with their urban and suburban counterparts, caregivers in rural regions may be less likely to provide information as to the presence and severity of symptoms and impairment in the school context.

The Individuals with Disabilities Education Improvement Act (IDEIA, 2004) specifically notes that a clinical diagnosis is not necessary (nor is it sufficient) to qualify a child for school-based services. Therefore, even if a child has received a diagnosis of ADHD, school professionals will need to conduct an assessment of the child's patterns of strengths and areas of impairment. This type of assessment process is conducted to identify the behaviors that are causing the most disruption in the child's learning and to match these issues to intervention goals and plans. Often, a target behavior interview can be conducted with teachers and school staff familiar with the student to identify *specific* behaviors most impairing to the student's school functioning.[3] This often involves taking broad or vague referral concerns (e.g., "He's out of control, he's so disruptive to the classroom") and distilling

[2]Links to download the Disruptive Behavior Disorders Rating Scale, Strengths and Difficulties Questionnaire and the Impairment Rating Scale are available at http://www.oucirs.org/resources/educator&mhprofessional.

[3]A target behavior interview template is available at http://www.oucirs.org/resources/dailyreportcard.

them into observable, measurable behaviors (e.g., incomplete work, out-of-seat behavior, and impulsive blurting out during instruction). Particularly for students with ADHD, a helpful tool can be found in the recently developed Integrated Screening and Intervention System (ISIS) Teacher Rating Form (ITRF; Volpe & Fabiano, 2013) which includes both a teacher report form with examples of the most common behaviors exhibited by students with ADHD that warrant intervention and an interview guide to help prioritize which of the exhibited behaviors to target in intervention. This type of assessment process, coupled with classroom observations and functional behavior analysis (Gresham, Watson, & Skinner, 2001), is an efficient and effective way to assess student needs in the absence of a clinical diagnostician.

Within both the RtI and life course frameworks, progress monitoring is a core component necessary to make data-based decisions about service provision. In rural communities, where community-based diagnostic evaluations may be less accessible, short-cycle assessments to monitor progress and intervention response may provide necessary information about changes in functioning. For example, our group has utilized a daily report card to monitor targeted problem behaviors (see details in the "Intervention" section below) to guide decisions about when to change intervention intensity, utilize alternative interventions, or refer for medication consultation (Owens, Murphy, Richerson, Girio, & Himawan, 2008).

Local Partnerships for Assessment

Another potential solution to the dearth of available resources within a rural school system is to partner with local agencies to have them conduct services *within* the school context. Advocates of expanded school mental health models (see Weist, Lever, Bradshaw, & Owens, 2014) propose that by leveraging partnerships among schools, community agencies, and families, school professionals can maximize the availability of services across the continuum of care (i.e., mental health promotion, prevention efforts, screening, assessment, early and intensive intervention). In rural communities, this may involve colocating community mental health professionals in the school setting or obtaining professional development training for school-employed SMHPs in assessment and intervention for children with ADHD. Several free workshops and low-cost professional development trainings can be found at the website for the Society for Clinical Child and Adolescent Psychology (i.e., Division 53 within the American Psychological Association).[4] Similarly, school districts may garner additional resources by partnering with nearby universities that could offer psychological assessment and consultation services in the context of their training missions (e.g., services provided by graduate students). Models of this type of partnership in rural communities are emerging (Albright et al., 2013; Owens et al., 2008; Watabe, Stewart, & Owens, 2013) and showing promise that evidence-based services can be integrated into schools and students and school staff can benefit from such partnerships.

Evidence-Based Intervention

The current state of the ADHD treatment literature indicates that there are evidence-based psychosocial (Evans, Owens, & Bunford, 2014) and pharmacological (Conners, 2002; Waxmonsky, 2005) interventions for ADHD. Below, we discuss these interventions and offer suggestions for maximizing their success in rural settings.

Psychosocial Interventions

Behavioral classroom interventions. There are several universal strategies that have substantial empirical support for preventing and managing inattentive and disruptive behavior in the classroom (Eiraldi, Mautone, & Power, 2012; Epstein et al., 2008). These strategies include praise and

[4]Resources can be found at http://effectivechildtherapy.fiu.edu/professionals.

differential attention to reinforce appropriate behavior and decrease inappropriate behavior; brief, specific instructions that are evaluated for compliance; classroom rules that are clearly posted, phrased in positive language, and evaluated consistently; repetition and teaching of classroom rules and routines; consequences for violations of classroom rules; transitional warnings prior to shifts in activities; and elimination of antecedents and consequences that unintentionally maintain negative behavior. In the life course model (Layer 1) or RtI (Tier 1) frameworks, a SMHP could consult collaboratively with teachers to facilitate implementation of these strategies. Such consultation is important because a poorly managed classroom can exacerbate ADHD symptoms and associated impairments, and because these strategies represent the foundation upon which other strategies (e.g., interventions in Tier 2 or Layer 2) are built.

When universal behavioral supports are insufficient to manage the behavior of children with ADHD, more individualized interventions are indicated. Evidence-based interventions that can be applied in Tier 2 or Layer 2 include the daily report card (DRC; Volpe & Fabiano, 2013; Owens et al., 2012), token economies (e.g., Coles et al., 2005), and response-cost programs (e.g., Carlson, Mann, & Alexander, 2000). The DRC contains target behaviors and goals that are specific to the areas in which the child most needs improvement (e.g., reducing interruptions, increasing work completion, reducing aggression), provides incentives and rewards to promote behavior change, and uses a shaping procedure to move the child's behavior into the typical range. The DRC also provides a mechanism for daily home-school communication.

Although evidence-based interventions are available, use of these interventions by teachers remains limited (Martinussen, Tannock, & Chaban, 2011). Thus, school personnel, including administrators and SMHPs, must dedicate time to promoting these interventions and supporting teachers' use of them throughout the year. For example, SMHPs can facilitate teachers' use of a DRC by recommending the strategy at student support team meetings, by providing teachers with resources and templates for this intervention (Volpe & Fabiano, 2013; www.oucirs.org/resources/dailyreportcard), and by offering ongoing consultation to problem solve challenges as they arrive (Watabe et al., 2013).

Given the limited number of SMHPs in a rural school district, administrators could also leverage the expertise and social influence of key opinion leader (KOL) teachers. KOLs are peer-nominated teachers who have social influence in their school and can help support the use of evidence-based interventions for ADHD through the use of their social network. Atkins et al. (2008) found that teachers reported greater adoption and implementation of intervention strategies when working jointly with a KOL and mental health consultant than when working with a mental health consultant alone. Further, teachers report being more likely to adopt DRC procedures when provided with KOL supports, as opposed to standard consultation or in-service opportunities (Holdaway & Owens, 2015). Thus, school administrators could have teachers identify the KOLs who have strengths and expertise in classroom management and invest resources in advanced trainings for these KOLs. The KOLs can work with SMHPs (or colocated community mental health staff) to introduce the interventions to teachers and to obtain buy-in for their use. Then, either the KOL or the SMHP could provide ongoing support to help the teacher maintain the use of the strategy or problem solve when challenges arise.

While KOLs can increase teachers' use of an intervention, caregivers' concern about stigma related to receipt of an individualized intervention could affect whether they support the use of the DRC, or other interventions, for their child and participate in the intervention. SMHPs can help counter stigma by providing psycho-education to the caregivers and child about the etiology of ADHD (particularly the biological nature of the disorder), providing data-based information about the child's response to the universal classroom management strategies, promoting the intervention in a manner that is analogous to supports received for other less stigmatizing problems (e.g., glasses for vision correction, inhaler

for asthma), and explaining how the intervention can help the child build skills needed for both short- and long-term success.

Behavioral parenting programs. Another evidence-based psychosocial intervention for ADHD that can be provided by SMHPs is behavior modification training for caregivers (Evans Owens, & Bunford, 2014). This intervention can be conducted in an individual or a group format, and involves teaching caregivers strategies to improve discipline and interactions with their children and helping them implement these strategies in the home. The strategies include use of house rules, specific praise, effective instruction, differential attention, in addition to the use of privilege systems and prudent consequences.

For some caregivers, group-based parenting workshops facilitated by SMHPs at the child's school can help reduce barriers to obtaining mental health services in rural communities. For example, caregivers may feel less stigma attending a meeting at their child's school than at a mental health clinic, and many caregivers derive social support by participating with other families who are experiencing similar challenges. Further, groups conducted by SMHPs can be provided at no charge to the families, reducing financial barriers to participation. Similarly, groups held at school or a central community location (e.g., recreation center or church) may reduce transportation barriers and enhance access to services, as families may live closer to their child's school or church than to the nearest health or mental health clinic. Lastly, one qualitative study (Owens et al., 2007) suggests that having a caregiver colead the group with the SMHP may further reduce stigma and feelings of distrust for some families in rural communities.

However, group-based services are not preferred by all caregivers (Cunningham et al., 2008), as some caregivers feel uncomfortable sharing information in a group and may feel more stigmatized and fearful in a group format as compared to an individualized format (Koerting et al., 2013). Thus, SMHPs need be flexible in their approach to meet the needs of different families. We recommend offering both group and individual formats, sharing the advantages and disadvantages of each with families. We also recommend considering practical means for reducing barriers, such as offering sessions at various times in the day, providing childcare and food while caregivers attend sessions, and inviting extended family members based on the caregiver's preferences.

In sum, school-based interventions for ADHD present a prime opportunity to enhance access to high-quality, individualized services. School-based interventions also offer the opportunity for SMHPs to connect with children's caregivers to provide behavioral modification training, to which they may not have otherwise had access.

Pharmacological Intervention

Pharmacological intervention is another effective intervention for ADHD. Medications approved by the Federal Drug Administration for the treatment of ADHD include amphetamine stimulants (common trade names: Adderall, Dexedrine, Vyvanse), methylphenidate stimulants (common trade names: Ritalin, Focalin, Concerta), and non-stimulants (common trade names: Strattera, Intuniv). In the life course model, medication is considered within Layer 3. For some families, medication may be preferable to psychosocial intervention because administration of medication requires less time than administration of psychosocial interventions. Additionally, they may find it less stigmatizing than attending a parenting group because medication use can be kept private and connotes a medical response to a biological disorder, rather than a family-based response to a behavior problem. Further, some parents anticipate that medication will help their child improve in academics (DosReis et al., 2009), even though the evidence regarding the impact of medication on academics is mixed and, at best, may provide only small academic gain (Scheffler et al., 2009) with little effect in the long term (Langberg et al., 2011). However, for other families, medication is less desirable than behavioral intervention (Krain, Kendall, & Power, 2005; Waschbusch et al., 2011), for reasons including concerns about side effects,

changes to the child's personality, and potential for future substance abuse (DosReis et al., 2009). Finally, parents and school mental health professionals may consider a combined or sequenced treatment, though stakeholders should consider emerging evidence regarding whether the order of presentation has a significant impact on outcomes (Pelham et al., 2008). Thus, the child's health-care providers and caregivers should consider whether medication, in isolation or in combination with psychosocial interventions, is well matched to the child's needs and the caregiver's preferences.

Although SMHPs typically cannot prescribe medication, they can assist families as they navigate decisions about this intervention and can help to maximize its success. First, SMHPs can provide accurate, up-to-date information about medication. Recommendations about medications for ADHD can be found on the American Academy of Child and Adolescent Psychiatry's website.[5] Second, if a family opts for short-acting medication, the SMHP can work with the school nurse or other staff to organize midday medication dosing. Third, with caregiver consent, SMHPs can be conduits for providing school-based data (e.g., teacher rating scales, daily report card data, office referrals) that could inform the physicians' decision about optimal dose and timing of medication administration. Fourth, in our own communities, SMHPs have accompanied caregivers to medication-management appointments to facilitate communication with the physician and to offer accurate information about the child's presentation at school. Lastly, telehealth (health care through technology) which is on the rise may be particularly useful in rural settings (Duncan, Velasquez, & Nelson, 2013). Using telepsychiatry at schools presents one way to address transportation and access barriers to interventions. Thus, although SMHPs may not be able to prescribe medications for ADHD, there are many ways that they can support medication adherence and assist with access to and coordination of pharmacological care.

[5]American Academy of Child and Adolescent Psychiatry recommendations can be found at http://www.aacap.org/App_Themes/AACAP/docs/practice_parameters/jaacap_adhd_2007.pdf; also see http://ccf.fiu.edu/resources/printable-information/ as a helpful resource for caregivers.

Accommodations and Modifications

If a child's response to psychosocial and pharmacological interventions is inadequate and significant impairment remains, SMHPs can consider working with the child's teacher to provide the child accommodations and modifications. The terms accommodations and modifications are often used interchangeably, but Harrison et al. (2013) define the differences between the terms, with *accommodations* representing changes to procedures that hold a child to grade-level standards but provide a differential boost to reach this standard (e.g., read tests aloud), and *modifications* representing changes to procedures that alter or lower expectations for the child (e.g., reduce difficulty of work). Accommodations are commonly used in individual education plans (IEPs) for children in special education (i.e., Tier 3), and are commonly used for children with ADHD (Spiel, Evans, & Langberg, 2014). However, the authors of the life course model recommend that these strategies be used as a last resort (or in combination with strategies in Layers 1–3) for two reasons. First, neither accommodations nor modifications facilitate the development of age-appropriate competencies or skills; instead, they reduce expectations. While they may remove the problem in the short term, they sacrifice the long-term goal of student self-sufficiency and independent functioning. Second, Harrison et al.'s (2013) review notes that despite available lists of recommended accommodations, there is not empirical support for the effectiveness of any of these strategies for children with ADHD. Thus, until the science behind accommodations is as strong as the science supporting the previously described interventions, we encourage SMHPs to recommend the use of strategies associated with Layers 1, 2, and 3 before promoting accommodations and modifications.

Summary and Future Directions

Assessment and intervention of ADHD within the rural school setting are challenging for reasons specific to both the nature of the disorder and characteristics of the rural setting (e.g., high rates of poverty, a limited number of service providers). Though these challenges can be daunting, there are ways in which they can be mitigated, such as by using free, universal screening measures to assist with identification of children in need, obtaining low-cost professional development training, and allocating resources strategically (e.g., time and location of services, delivery format) to reduce stigma and maximize caregiver participation. We encourage administrators, SMHPs, and educators to systematically attempt to maximize the utilization of evidence-based assessment and intervention approaches most likely to benefit the long-term development of students with ADHD. The research and recommendations included herein can be utilized within an RtI or life course model framework, within general or special education, and can help to guide educators and SMHPs to maximize benefits for students with ADHD, their families, and school professionals in the rural school setting.

For researchers, we recommend continued examination of the effects of specific characteristics within the rural education system on intervention outcome. In particular, we recommend that researchers carefully gather information on potential moderators (associated with the rural context) of intervention response to better identify which characteristics may have an impact on assessment and intervention outcomes and may, therefore, be fruitful areas for targeted adaptation. Though we are unaware of large-scale studies that accomplish this goal for the rural environment, one such review can be found for urban environments. Namely, Farahmand, Grant, Polo, Duffy, and Dubois (2011) examined intervention effectiveness in studies of urban school-based intervention and compared the effects to those in previous reviews for *all* school environments (Rones & Hoagwood, 2000). The authors found that the proportion of school interventions that were deemed effective was smaller in urban environments than that found across all environments (e.g., Rones & Hoagwood, 2000). Further, of those that were effective, the effect sizes were typically smaller. The authors speculated that these discrepancies were driven by particularly ineffective interventions for substance and conduct issues in the urban environment as compared to findings across environments. Unfortunately, mediators and moderators (associated with the environment) could not be calculated due to the design of the study including only low income and urban areas and then compared, non-statistically, to previously reported studies. The results highlight the fact that the positive outcomes found in other reviews (e.g., Rones & Hoagwood, 2000) may not be applicable in low-income urban schools. A similar exploration in a rural context may lead to a better understanding of how contextual factors affect intervention outcomes in rural schools and provide guideposts that inform adaptations to intervention that would ideally increase intervention effectiveness for the intended population. Lastly, utilization of research designs that allow for direct comparison of urban and rural school districts should be a priority for researchers interested in learning more about the specific characteristics of rural environments that impact the effectiveness of assessment and intervention for students with ADHD. Though rural issues such as stigma and a low number of service providers can negatively affect receipt of mental health services, there are ways that SMHPs can work to overcome these barriers.

In this chapter, we have reviewed evidence-based assessment and intervention strategies for children with ADHD in elementary schools, and described how such strategies can be applied within the rural setting. We have extracted ideas and recommendations from the limited literature that is available and from our own experiences to provide strategies for reducing barriers to assessment and intervention for ADHD in rural children. By knowing the challenges and barriers present in their particular setting and the recommendations offered in this chapter, SMHPs can consider how best to integrate the information to suit the needs of their school district, students, and students' families.

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Preventing Suicide Among Students in Rural Schools

9

Marisa Schorr, Whitney Van Sant, and John Paul Jameson

Suicide is the second leading cause of death among 10- to 19-year-olds in the United States, accounting for nearly 20% of all deaths in this age group (Centers for Disease Control and Prevention, 2014). In addition to adolescents who die by suicide, many more survive suicide attempts. According to data collected in the 2015 Youth Risk Behavior Survey (YRBS; Kann et al., 2016), 17.7% of American high school students seriously considered a suicide attempt, 14.6% reported making a plan to attempt suicide, 8.6% reported at least one suicide attempt in the previous year, and 2.8% reported a suicide attempt that required medical attention in the previous year. Given the enormous toll of suicide on families and communities, it is of critical importance to take a focused approach in understanding the multitude of risk and protective factors associated with adolescent suicide. Furthermore, there is a strong impetus for the dissemination and implementation of efficacious suicide prevention programs, particularly in rural areas. This chapter focuses on suicidal behavior among rural youth, a population that has traditionally been understudied, and discusses viable options for school-based prevention programs in such settings.

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Among adults, it is clear that suicide is more common among those living in rural areas as compared to those living in urban and suburban regions (e.g., Hirsch, 2006; Taylor, Page, Morrell, Harrison, & Carter, 2005). The relationship between suicide and rurality has been shown to be particularly strong among young men (Caldwell, Jorm, & Dear, 2004). Support for a relationship between suicidal behavior and rurality among adolescents has been mixed, in part due to insufficient research in rural communities. One study found that the rate of suicide attempts among rural Minnesotan youth was substantially greater than the nationwide average (Forrest, 1988), while other studies (Adcock, Nagy, & Simpson, 1991; Albers & Evans, 1994; Johnson et al., 2008; Murphy, 2014) have shown similar rates of suicidal behavior among rural and urban youth. However, a recent analysis of suicide deaths in the United States indicated that rural suicide rates were nearly double those of urban areas among youth and young adults aged 10–24. Further, this study suggested that rural-urban disparities are increasing over time for both males and females (Fontanella et al., 2015). This alarming trend may reflect a number of factors, including increased access to lethal means, such as firearms; the relative scarcity of mental health resources in rural areas; barriers to care such as transportation, cost, and stigma; and geographic and social isolation. Rural school mental health (SMH) programs offer unique

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opportunities to circumvent many challenges by providing free, school-based mental health services and developing and implementing prevention programs to identify and intervene with students and risk for suicide.

Suicide Risk Factors

Demographic factors. Historically, the suicide rate has been higher for white adolescents than for black (Blum et al., 2000; Shaffer, Garland, Gould, Fisher, & Trautman, 1988). However, the racial gap in perceived risk of suicide appears to be narrowing (Greening & Stoppelbein, 2002). Recent epidemiological research has suggested similar rates of suicide attempts among black and white youth and results suggested that Hispanic youth were significantly more likely to have attempted suicide than either white or black youth (Kann et al., 2016). Further, American-Indian youth exhibit disproportionally high rates of suicide deaths (Goldston et al., 2008). The extent to which these racial and ethnic differences exist in rural areas is unknown and would likely depend on the demographic makeup of a given rural community. However, differences in suicide risk may be exacerbated in areas that are geographically isolated and offer few social supports for racial minorities. Thus, it is critical that minority youth's risk for suicide is not underestimated and that suicide prevention protocols are developed and implemented with particular attention to cultural competence.

Gender differences also emerge in rates of suicide attempts and completed suicides. Compared to male students, females are more likely to report feeling sad or hopeless, having seriously considered suicide, made a suicide plan, and to have attempted suicide (Kann et al., 2016). In contrast, male youth are more likely to complete suicide than their female counterparts. From 2004 to 2014, suicide accounted for 14.7% of deaths among boys aged 10–19, compared to 9.5% among girls of the same age group (CDC WISQARS, 2005). A number of factors may explain these gender differences, including the tendency for boys to use more lethal and irreversible means, have a higher likelihood of being intoxicated at the time of the suicide, and experience greater risks related to symptoms of conduct disorder (Brent, Baugher, Bridge, Chen, & Chiappetta, 1999). However, no single explanation appears to adequately explain this gender paradox (Canetto & Sakinofsky, 1998).

There is strong evidence to suggest that lesbian, gay, bisexual, and transgender (LGBT) youth are more likely to experience suicidal ideation and make suicide attempts (Russell & Joyner, 2001; Ybarra, Mitchell, Kosciw, & Korchmaros, 2015). In addition to depression, hopelessness, and conduct problems that elevate the risk for suicidality among all youth, several LGBT-specific risk factors have emerged in the literature, including early age of first same-sex attraction, LGBT victimization, and parental discouragement of childhood gender nonconformity (D'Augelli et al., 2005; McDaniel, Purcell, & D'Augelli, 2001; Mustanski & Liu, 2012). Further, LGBT youth may experience bullying and physical victimization at higher rates than their heterosexual peers, which may also elevate the risk for depression, suicidal ideation, and suicide attempts (Friedman, Koeske, Silvestre, Korr, & Sites, 2006; Russell, Ryan, Toomey, Diaz, & Sanchez, 2011; Ybarra et al., 2015). These results have recently been replicated in a sample of rural adolescents (Ballard, Jameson, & Martz, 2017).

Schools provide unique venues to facilitate social support and acceptance for LGBT students; however, the 2013 National School Climate Survey indicated serious concerns about school culture regarding LGBT youth (Kosciw, Greytak, Palmer, & Boesen, 2014). More than 80% of LGBT youth reported being verbally harassed because of their sexuality, over one-third reported experiencing physical harassment at school, and nearly one-fifth reported experiencing physical assault. Most students did not report being harassed or assaulted to school personnel and many cited doubts that staff would intervene effectively or concerns that the situation would worsen. Of those who did report victimization to school personnel, over 60% reported that no action

was taken. Furthermore, nearly two-thirds of LGBT youth reported hearing homophobic remarks often or frequently at school, often in front of school personnel. Students noted that teachers were unlikely to intervene when hearing students use homophobic language, which may send a message that such language is tolerated. This message may be underscored by staff's behavior; more than half of students reported hearing homophobic remarks from school personnel. These concerns may be particularly pronounced in small towns and rural areas, where students reported the highest rates of biased language, harassment, and assault.

Despite these alarming trends, schools have unique opportunities to provide safe and affirming spaces for LGBT students through Gay-Straight Alliances (GSAs) or similar clubs. The presence of a GSA within a school is associated with increased sense of school belonging, subjective experience of safety, reduced depression, and decreased risk of suicide attempts (Goodenow, Szalacha, & Westheimer, 2006; Heck, Flentje, & Cochran, 2011; Walls, Kane, & Wisneski, 2010). However, only half of students in the 2013 National School Climate Study (Kosciw et al., 2014) reported having a GSA or similar club in their school, and small, rural schools, particularly those in conservative regions or in poorer neighborhoods, are least likely to have GSAs (Fetner & Kush, 2008; Kosciw et al., 2014).

Psychopathology and substance abuse. Though the single greatest predictor of a completed suicide is a prior suicide attempt (Borowsky, Ireland, & Resnick, 2001; Bridge, Goldstein, & Brent, 2006; Lewinsohn, Rohde, & Seeley, 1994), psychopathology and substance abuse also greatly increase youth's vulnerability to suicidal behavior (Rosenberg et al., 2005). Depression is a particularly strong predictor of suicide attempts, even when controlling for social support, religiousness, and other protective factors (Greening & Stoppelbein, 2002; Rosenberg et al., 2005). While the association between depression and suicidality is evident, other psychological symptoms have been associated with suicidal behaviors. In a psychological autopsy study of adolescent suicide victims, Brent et al. (1999) found that the presence of a mood disorder, substance-abuse disorder, or conduct disorder significantly predicted an increased risk for suicide. Posttraumatic stress disorder (PTSD) has been shown to increase the risk of suicidal ideation and past suicide attempts, even when controlling for the effects of depression and gender (Mazza, 2000). Despite the risks posed by the presence of depression and other psychological symptoms, the ability to regulate emotions may protect against suicidality despite the presence of depressive symptoms (Pisani et al., 2013).

A strong association between substance use/abuse and suicidal behavior has also been demonstrated (Adcock et al., 1991; Brent et al., 1993; Dunn, Goodrow, Givens, & Austin, 2008). Early initiation to alcohol, cigarettes, cocaine, and inhalants has been associated with increased risk of suicidal ideation and attempts among rural youth (Dunn et al., 2008). The relationship between frequency of substance use and suicidality is less clear. One study found that the frequency of inhalant use was associated with suicidal ideation among rural adolescents, but no relationship was found between suicidality and any other type of substance. In contrast, opioid, nicotine, and other illicit drug (excluding alcohol, marijuana, and Ritalin) use was associated with suicidal ideation among urban adolescents (Murphy, 2014). Another study, however, found that heavy alcohol use and hard drug use were both associated with suicide attempts among youth from rural communities or small metropolises (Rosenberg et al., 2005). While substance use/abuse may play an important role in suicide risk detection and prevention, further research is needed to clarify this relationship, particularly in rural areas.

Comorbidity further increases the risk of suicidal behavior among adolescents. When major depression co-occurs with substance abuse, the risk of completed suicide is particularly high (Brent et al., 1999). Additionally, the combination of mood, disruptive, and substance-abuse disorders has been shown to place youth at increased risk for suicidal behaviors (Adcock et al., 1991; Wagner, Cole, & Schwartzman, 1995). Psychological symptoms

and comorbidities are of particular concern in rural areas, where limited access to mental health services may exacerbate suicide risk (Fontanella et al., 2015; Hirsch, 2006). Thus, it is important for school personnel to be familiar with local providers, school-based resources, and community mental health agencies in order to facilitate appropriate referrals for mental health services.

While psychopathology and/or substance abuse are associated with elevated risk for suicide, these factors cannot solely account for attempted and completed suicides among adolescents. Adolescents may be particularly prone to impulsivity, which may directly or indirectly elevate the risk of suicidality (Witte et al., 2008). A study of 153 survivors of nearly lethal suicide attempts (ages 13–34) classified nearly one-quarter of their sample as impulsive suicide attempters, indicating that respondents reported making their attempt within 5 min of deciding to attempt suicide and more than 90% of the sample reported spending less than a day planning after making the decision to attempt suicide (Simon et al., 2001). Further, majority of existing literature suggests comparable lethality among planned and impulsive suicide attempts (Rimkeviciene, O'Gorman, & De Leo, 2015).

Impulsive suicide attempts may be particularly common among those without psychopathology or substance-abuse risk factors. A 2010 study of the Rhode Island YRBS data indicated that planful attempters tended to report prior depressive symptoms and suicidal ideation but that non-planful attempters were unlikely to report these risk factors. Further, non-planful attempters were more likely to report attempts that required medical attention than those who reported planned suicide attempts, which may suggest increased risk of physical harm among the more impulsive attempters (Jiang, Perry, & Hesser, 2010). These findings are particularly alarming as they suggest that the presence of psychological symptoms or substance abuse cannot reliably predict suicide risk among adolescents.

Peer and family support. Social factors should also be considered in suicide prevention protocols, as interpersonal conflict or loss is the most common precipitant for suicide among adolescents (Adcock et al., 1991; Brent et al., 1999). Such conflict may be particularly relevant when assessing suicide risk, as Wagner et al. (1995) found that rural high school students who attempted suicide had greater family and social stress than their depressed peers who had not attempted suicide. Further, suicide risk is elevated among youth who lack strong connections to support systems such as school, work, and family (Gould, Fisher, Parides, Flory, & Shaffer, 1996). Conversely, school connectedness may be a protective factor against suicide risk among youth (Borowsky et al., 2001). School-based settings provide unique opportunities for providers to observe social behaviors and to collect collateral information from teachers, professional school counselors, and administrators regarding students' social interactions and school engagement, which should be incorporated when assessing suicide risk and developing safety plans.

Suicide clusters and contagion effects tend to be particularly pronounced among adolescents and young adults. Compared with depressed or suicidal youth with no history of a suicide attempt, adolescents who reported a suicide attempt may be more likely to know someone who completed suicide (Wagner et al., 1995). These effects also appear to generalize to other suicidal behaviors; one study found that having a friend who had attempted suicide in the past year doubled the likelihood than an adolescent who experience suicidal thoughts (Bearman & Moody, 2004). Such effects highlight the need for schools to implement prudent, evidence-based postvention measures in response to a suicide death of a student. These considerations are particularly important in rural areas and tight-knit communities where there is a high likelihood that students will have had some contact with the deceased.

A number of family variables are associated with suicide risk among youth. Perceived lack of parent support, family disruption, physical abuse, poor communication with parents, and being born to a teenage mother are associated with suicide attempts among adolescents (Bridge et al., 2006; Gould et al., 1996; Lewinsohn et al., 1994; Wagner et al., 1995). Additionally, youth who

engage in few activities with parents, perceive family communication as angry or aggressive, and perceive familial disorganization are more likely to endorse suicidal ideation (Bearman & Moody, 2004; Meneese & Yutrzenka, 1990). In contrast, family connectedness has been shown to reduce the risk of suicide attempts among youth and family support is a stronger protective factor than friend or peer support (Borowsky et al., 2001; Greening & Stoppelbein, 2002). Family relations may be particularly important in rural areas, where geographic isolation may limit other sources of social support (Hirsch, 2006).

Health-risk behaviors. Health-risk behaviors, such as physical fighting, weapon carrying, and sexual activity, are also associated with increased risk of suicidal behavior (Borowsky et al., 2001; Nickerson & Slater, 2009). Delinquency is also associated with suicidal ideation and attempts (Thompson, Kingree, & Ho, 2006), and legal or disciplinary problems have been identified as common precipitants of suicidal behavior (Adcock et al., 1991; Gould et al., 1996). However, these effects may be moderate-to-severe risk-taking; a 2003 study by Stanton, Spirito, Donaldson, and Boergers (2003) found that adolescents who had attempted suicide were no more likely to report stealing, sneaking out, breaking rules, and completing risky dares than youth who had never attempted suicide.

Exposure to violence. In addition to participating in fighting, violent victimization is also associated with suicide attempts. Youth who have experienced bullying, physical assault, and sexual assault are at increased risk of suicidality, and the risk of suicide among boys who have been sexually assaulted is particularly pronounced (Rosenberg et al., 2005). A nationally representative sample indicated that rural youth demonstrate similar levels of violent behavior and experience comparable rates of victimization to suburban and urban youth, suggesting that the effects of violence should not be underestimated in rural settings (Johnson et al., 2008).

A study of rural Appalachian adolescents found significantly increased suicide risk for females who reported experiencing physical interpersonal violence, sexual violence, or both (Martz, Jameson, & Page, 2016). Adolescent females reporting victimization were three to six times more likely than non-victims to report significant depression symptoms, two to four times more likely to report suicidal ideation and planning, and twice as likely to report making a suicide attempt. Contrary to the findings of Rosenberg et al. (2005), physical violence and rape were associated with higher rates of depression in males, but neither type of victimization was associated with increased risk for suicide planning or attempts.

Access to means. From 2004 to 2014, nearly half of suicide deaths among males aged 10–19 were completed with firearms. In contrast, less than one-quarter of the suicides completed among females of the same age used firearms (CDC WISQARS). While the lethality of means cannot solely account for the elevated suicide rate among boys, access to highly lethal means such as firearms increases the likelihood that a suicide attempt will end in death (Hawton, 2007). Easy access to firearms has been shown to predict suicidal ideation and attempts among both boys and girls (Bearman & Moody, 2004; Borowsky et al., 2001) and the presence of any gun (handgun or long gun) in the home has been linked with suicide risk, and the presence of long guns is more closely associated with rural suicides than urban (Brent et al., 1993).

Firearm suicides are particularly concerning in rural areas, where gun ownership and hunting frequently are integral to the local culture and where youth may have ready access to firearms. In the United States, suicide by firearm has been shown to be 2.7 times higher for rural females and 3.3 times higher for rural males as compared to their urban counterparts (Fontanella et al., 2015). Similar disparities have been demonstrated in Australia in the 1990s, where a national decrease in firearm suicide rates concealed a rural-specific rising firearm suicide rate, particularly among boys and men (Dudley, Kelk, Florio, Howard, & Waters, 1998). More recent research has suggested that firearm suicides have dropped substantially in both rural and urban areas following the enactment of firearm restriction laws in 1996; however, young Australian males in rural areas with easy access to firearms remain a high-risk group (McNamara, 2012).

Several means of restriction interventions have been implemented internationally and have been associated with substantial reductions in suicide deaths. For example, during the 1990s Sri Lanka had one of the highest suicide rates in the world. Suicides were often completed using highly toxic pesticides, which were readily available to many in the rural, largely agricultural based country. Beginning in 1995 and continuing through the 1990s, bans on the most highly toxic pesticides were implemented. These restrictions coincided with a substantial reduction in suicide deaths by self-poisoning. From 1994 to 1996, self-poisoning accounted for the majority of suicide deaths (79%), and 2010 to 2012, self-poisoning accounted for less than half (48%; Knipe et al., 2014). Furthermore, from 1995 to 2005 the country experienced a 50% reduction in overall suicide rates, and method-specific suicide data suggests that this decrease can be primarily attributed to a reduction of self-poisoning suicides (Gunnell et al., 2007).

Similar reductions in suicide were evidenced in the Israeli Defense Force (IDF), the compulsory service force for all Israeli adults aged 18–21. Prior to 2006, many IDF soldiers took their firearms home with them on the weekends, and from 2003 to 2005, there were an average of 28 suicides per year, over 90% of which were completed using firearms. In 2006, the IDF implemented a policy mandating that soldiers leave their weapons at their bases when returning home for the weekend. Following the policy change, suicide rates dropped by 40%. Strikingly, most of the reduction in suicide deaths could be attributed to a decrease in suicides using firearms completed over the weekend, which dropped from an average of 10 per year from 2003 to 2005 to 3 per year from 2007 (Lubin et al., 2010).

Despite our growing understanding of the relationships between these numerous risk factors and suicide, a substantial proportion of variance remains unexplained. Moreover, these risk variables are not particularly powerful in distinguishing between those who consider suicide but do not make an attempt and those who do attempt (May & Klonsky, 2016). Thus, we suggest that SMH programs take a comprehensive approach to suicide prevention efforts and remain mindful of both identified risk factors and current limitations of the science in making accurate predictions about suicide risk.

Suicide Prevention Programs in Schools

For several decades, schools have been identified as a logical and efficient place to implement youth mental health and suicide prevention programs (Foster et al., 2005; Kalafat, 2003). Because youth in rural communities are at a higher risk of suicide (Eberhardt & Pamuk, 2004; Fontanella et al., 2015; Kann et al., 2016; Singh & Siahpush, 2014) and rural communities often lack mental health literacy, resources, and providers to implement prevention programs (Michael, Renkert, Wandler, & Stamey, 2009), schools are an even more appropriate setting to implement SMH and suicide prevention programs (SPP). Momentum for the development of school-based SPPs grew following the Surgeon General's call to action to reduce the growing public health concern of youth suicide (U.S. Public Health Service, 1999). However, these programs vary in effectiveness and there is little agreement on the most effective ways to implement them (Miller, Eckert, & Mazza, 2009). Additionally, since suicides that did not occur cannot be measured, the outcomes of SPPs are challenging to evaluate and are often rated as effective based simply on participants' increased knowledge about suicide and help-seeking behaviors (Cusimano & Sameem, 2011).

SPPs are typically designed and delivered according to a three-tier public health prevention model comprised of universal, selective, and indicated interventions (typically referred to as Tier 1, Tier 2, and Tier 3, respectively, when applied to the school setting; Brown-Chidsey & Steege, 2010; Walker et al., 1996). The majority of the research on SPPs in schools is on interventions that were implemented as a stand-alone intervention at Tier 1 level designed to be broad and preventative in nature. We will review the performance and evidence base of some widely

used school-based SPPs and make recommendations for implementing these interventions in schools in a rural setting. Because this review is not intended to be exhaustive, we focus on programs that have an evidence base of sufficient quality for inclusion on the National Registry of Evidence-based Programs and Practices (NREPP; SAMHSA, 2016; http://nrepp.samhsa.gov). NREPP is a repository of programs that address mental health or substance use and have one or more experimental or quasi-experimental studies that provide evidence of efficacy in preventing or reducing the target issue. Further, we review those programs that have been developed and evaluated in rural areas or hold particular promise for implementation in rural areas. Additionally, we review postvention guidelines for helping schools respond to the death of a student as well as some recommendations for implementing SPPs in rural areas. Finally, we review the emerging research on a multitiered system of suicide prevention that addresses suicide alongside other universal mental health issues such as bullying and substance abuse.

Tier 1: Gatekeeper trainings. In rural settings, where resources for Tier 2 and Tier 3 may be limited, universal interventions often hold the most appeal. A common type of Tier 1 school-based SPP, known collectively as gatekeeper trainings, are increasing in popularity, particularly after recent financial support for their use was offered by the Substance Abuse and Mental Health Services Administration (SAMHSA; Partain, 2014). The rationale for gatekeeper training is that the majority of suicidal youth will reach out to a peer or a trusted adult rather than seeking help from a mental health professional. However, the majority of teachers and school staff report feeling uncomfortable with identifying and referring suicidal youth (Stiffman, Pescosolido, & Cabassa, 2004). Therefore, it is important for anyone who interacts with youth to have training in how to intervene and make an appropriate referral (Barnes, Ikeda, & Kresnow, 2002; Kalafat & Elias, 1994).

Two gatekeeper programs that are widely used in schools and are listed on the SAMHSA NREPP are Question, Persuade, Refer (QPR) and Youth Mental Health First Aid (YMHFA). QPR is a basic gatekeeper training intended to teach laypersons to identify suicidal individuals, persuade them to seek help, and refer them to an appropriate mental health professional. QPR was designed to be implemented on a large scale and thus is economical in terms of both cost and time (QPR Gatekeeper Training for Suicide Prevention, 2016). Outcomes of school-based implementation suggested that QPR improved teachers' confidence in identifying and referring suicidal youth but did not lead to notable increases in referrals (Gould, Greenberg, Velting, & Shaffer, 2003; Wyman, Brown, Inman, & Pena, 2008). A randomized trial of staff from 32 schools revealed that the largest effects were found with staff who had the lowest sense of efficacy prior to the training (Wyman et al., 2008). Thus, while QPR shows effectiveness on several target variables such as knowledge and confidence, it is limited in scope and should be combined with other strategies.

Mental Health First Aid (MHFA) is another popular gatekeeper training often that is often offered by local agencies at a low cost. MHFA has developed a specific youth training called Youth Mental Health First Aid (YMHFA) that is an 8-h training that educates participants about risk factors of mental health concerns and suicidal behaviors in adolescents. YMHFA advocates early intervention and offers a five-step action plan by which to help an adolescent in crisis: (a) assess risk of suicide or harm; (b) listen nonjudgmentally; (c) give reassurance and information; (d) encourage person to get appropriate help; and (e) encourage self-help strategies (Jorm, Kitchener, Kanowski, & Kelly, 2007). MHFA/YMHFA applied in a rural setting in Australia with adults and adolescents achieved positive results overall, including increased recognition of psychological disorders, agreement across disciplines about interventions, decreased social distance from those with mental health concerns, and an increase in help provided. However, there were no changes in the amount of individuals the participants had contact with or the amount of people who were advised to seek professional help (Jorm, Kitchener,

O'Kearney, & Dear, 2004). These results were replicated in a recent study conducted in the United States (Mendenhall et al., 2013).

Tiers 1 and 2: Suicide awareness and response curricula. Two widely known suicide awareness and response curricula in American schools are Signs of Suicide (SOS) and Lifelines: A Comprehensive Suicide Awareness and Responsiveness Program for Teens (Underwood & Kalafat, 2009) that are comprehensive school-wide programs that comprise both universal and selective interventions. Some comprehensive SPP programs also develop an indicated SMH Tier 3 crisis response team (Kalafat, 2003).

SOS is one of the most recognized evidence-based SPPs implemented in schools. SOS Suicide Prevention is a 2-day school-based intervention that aims to reduce the incidence of suicide by two mechanisms: providing students with psycho-education about suicide and screening for suicidal risk and depression. Students are taught how to recognize signs of depression and suicide, how to respond appropriately, as well as how to reach out to tell an adult. Students are also screened for depression and suicide risk, referred to indicated treatment if needed. SOS offers training for "trusted adult" gatekeepers; however, it primarily focuses on teaching students how to recognize depression and suicidality in themselves and others and how to reach out for help (Aseltine & DeMartino, 2004; Aseltine, James, Schilling, & Glanovsky, 2007; Schilling, Aseltine, & James, 2016).

A 2011 review of SPPs suggests that SOS is the only program to date known to have documented decreases in suicide attempts among high school students and middle school students who participated in the program (Cusimano & Sameem, 2011). The results of three separate clinical trials suggest that students' suicidal behaviors and suicidal ideation were reduced and students' knowledge about depression and suicide was increased after participating in SOS. However, help-seeking behaviors were unchanged (Aseltine & DeMartino, 2004; Aseltine et al., 2007; Schilling et al., 2016). SOS has positive ratings from teachers and staff that reported that it was not burdensome to implement (Cusimano & Sameem, 2011). The Rural Youth Suicide Prevention Workgroup strongly recommends that rural communities have reviewed referral sources and procedures in place before implementing screenings (Workgroup, Rural Youth Suicide Prevention, 2008).

Another comprehensive suicide prevention program that schools might consider is Lifelines: A Comprehensive Suicide Awareness and Responsiveness Program for Teens.

Lifelines is comprised of three separate curricula in one program: prevention, intervention, and postvention. Lifelines was developed and piloted in largely rural school districts in Maine, and as of 2009, it has been implemented in 33 schools across the state. Lifelines' principal investigator, John Kalafat, passed away in 2007 while writing an unpublished report for SAMSHA's National Registry of Evidence-based Programs and Practice (Kalafat, Madden, Haley, & O'Halloran, 2007; Lifelines Curriculum, 2016); therefore, only the classroom curriculum is listed with NREPP as an evidence-based program. This review suggested that four preliminary studies by the developer had consistent positive outcomes of increased positive knowledge, and attitudes about suicide and help-seeking behaviors (Lifelines Curriculum, 2016).

The aim of Lifelines prevention program is to establish a culture of caring in which suicidal behavior is recognized and help-seeking behavior is promoted. The prevention program includes a psycho-education workshop for parents, classroom curriculum for students, and training for staff. Lifelines intervention reviews resources and establishes guidelines of how to identify a student with suicidal behavior and how to respond appropriately. Lifelines postvention includes guidelines for schools in responding to the death of a student by suicide (Underwood & Kalafat, 2009).

Tier 2: Selective interventions for identified at-risk youth. Reconnecting Youth (RY) is a school-based, semester-long curriculum that is offered to selected students in grades 9–12 who have demonstrated poor academic achievement and are at risk of dropout. RY has three goals: to increase school performance, decrease substance use, and decrease suicide risk factors. RY includes periodic suicide risk assessment and lesson plans include education

on managing suicidal ideation and behaviors (Eggert, Thompson, Herting, & Nicholas, 1995). A 2013 review of SPPs gave RY a "B" rating and suggested that the open trials conducted on RY had consistent findings such as a reduction of delinquency, substance abuse, and increased GPA (Katz et al., 2013). There is some evidence to suggest that RY reduced students' risk factors for suicide such as decreasing hopelessness and increasing social support (Eggert et al., 1995).

A replication of RY reported some adverse effects such as strengthening relationships with deviant peers (Cho, Hallfors, & Sánchez, 2005; Hallfors et al., 2006), and the principal investigator of RY responded to these findings by providing evidence that the results were largely due to problems with program fidelity (Hallfors et al., 2009). However, these potentially iatrogenic effects are consistent with other researches that suggest that there may be unintended negative effects of group-delivered interventions for at-risk youth (Arnold & Hughes, 1999). Schools in rural settings might consider that if it is not feasible to implement RY with fidelity, they run the risk of adverse outcomes.

Tier 3: Indicated psychotherapy and crisis intervention. While it is documented in the literature that psychotherapy is effective for child and adolescent psychopathology, less is known about effective individual treatments for suicidal children and adolescents (Kalafat, 2005). Dialectical behavior therapy (DBT) is a type of cognitive behavioral therapy known as the most effective treatment for adults with borderline personality disorder and suicidal and self-harming behaviors (Crowell, Beauchaine, & Linehan, 2009; Linehan et al., 2006), and emerging research indicates that DBT may be an effective treatment for suicidal and self-injuring adolescents (Miller, Rathus, & Linehan, 2007; Rathus & Miller, 2002). A recent meta-analyses reviewed 14 studies on cognitive behavioral (CB) treatment (including DBT) for adolescents and suicidal behaviors. While the studies had less than optimal methodology due to ethical limitations restricting the use of RCTs with minors with suicidal behaviors, they found statistically significant reductions in suicidal ideation and self-harming behaviors, particularly for the treatments that targeted those behaviors (Labelle, Pouliot, & Janelle, 2015).

In spite of emerging support in favor of individual treatment for adolescents with suicidal behaviors, referrals often lack follow-through due to fragmented community mental health systems as well as this population's high rate of treatment dropout and lack of compliance (Gould et al., 2003; Kalafat, 2005). Adolescents in rural settings face additional barriers to treatment such as lack of transportation, lack of qualified providers, and stigma (Owens, Murphy, Richerson, Girio, & Himawan, 2008; Owens, Watabe, & Michael, 2013). Finally, since research suggests that effective crisis intervention involves a timely response and referral (Gould et al., 2003) school mental health (SMH) programs that offer direct individual services on-site have become a viable and relevant solution (Farmer, Burns, Phillips, Angold, & Costello, 2003).

An example of such a SMH program that has been implemented effectively in a rural setting is the Assessment, Support and Counseling (ASC) Center. The ASC Center is a SMH directed through partnership between a university and local school system. The ASC center offers individual cognitive behavioral therapies to students referred by their school counselor and provides treatment on school premises, during school hours. Over the past 10 years, the program has documented positive treatment outcomes such as reduction of reported psychological symptoms (Albright et al., 2013) as well as modest effects on academic outcomes (Michael et al., 2013).

In 2012, when the program expanded to a new school district with a high volume of crisis incidents, a protocol called the Prevention of Escalating Adolescent Crisis Events (PEACE) was developed (Sale, Michael, Egan, Stevens, & Massey, 2014). ASC clinicians and school staff quickly recognized and responded to the need for a set of systematic procedures to assess suicide (or, more rarely, homicide) risk, respond appropriately, and communicate clearly among school personnel and supervisors. PEACE is a color-coded system (green, yellow, orange, red) intended to guide clinical decision making, response, and follow-up. Each level of risk is

defined by the presence of sets of behaviorally anchored risk and protective factors to improve clinical decision making in times of stress. The protocol was implemented and used during the 2012/2013 school year with 33 crisis events and has been used in a total of 181 individual crisis interventions over four consecutive school years (2012–2016). During evaluation, no students assessed died by suicide or homicide (Lichiello et al., 2016). The PEACE protocol is associated with prompt referrals to outpatient treatment (preventing hospitalization) and works well within the framework of a school. PEACE is used as a tool to manage crisis response, not a prevention program to detect suicide ideation among the student body. It is recommended that it be used along with universal suicide prevention protocols (Michael et al., 2015).

Tier 3: Means restriction programs. Given the highly lethal nature of firearms and dangerous medications (e.g., opioids), suicide prevention protocols are more frequently incorporating measures to restrict lethal suicide methods from persons in crisis. One such program is Counseling Access to Lethal Means (CALM; Johnson, Frank, Ciocca, & Barber, 2011). CALM aids clinicians in collaborating with students and parents to identify a safe, locked location to temporarily store firearms and medications where they cannot be accessed by the suicidal person. If possible, out-of-home storage should be arranged, and counselors should engage in problem-solving conversations with students and families to identify potential locations. Options include a trusted friend or family member, storage facility, and some gun stores, police stations, or pawn shops. If an off-site location cannot be arranged, an agreement to store guns in locked safes or equipped with gun locks should be established, as well as a plan for who will maintain possession of the key; hiding firearms or keys is not recommended.

Conversations about means restriction are often challenging, particularly in rural areas where guns are considered a way of life. SMH professionals must be mindful of the cultural significance of guns and avoid perpetuating the misunderstanding that means restriction is a form of gun control. Instead, SMH professionals should frame these measures as elements of firearm safety and emphasize the temporary, voluntary nature of the arrangement, and concerted efforts should be made to demonstrate respect for individuals' relationships with guns.

Means restriction interventions should be tailored to meet the needs of individual students. It is advisable that access to firearms be restricted for all suicidal persons; however, additional considerations should be made based on the person's suicide plan. Medications and sharp objects may be removed from the student's possession and locked away and adult supervision may be required. Interventions should reflect careful assessment of the student's plan as well as lethal methods that may be available in the home. Given that psychopathology cannot reliably predict impulsive suicide attempts, means restriction interventions may be critical for comprehensive suicide prevention protocols.

Postvention. Following the tragedy of a student's death by suicide, many schools conduct a postvention. Postventions typically have two goals: offer support to the bereaved and reduce the adverse effect of the loss on the school including further suicide attempts. Postventions are a common practice for schools due to the phenomenon that suicides have been known to occur in clusters (Gould & Davidson, 1988), and evidence that suggests that the risk of imitative suicide is substantially higher among adolescents (Gould, Wallenstein, & Kleinman, 1990; Gould, Wallenstein, Kleinman, O'Carroll, & Mercy, 1990). While suicide epidemics have been known to exist throughout history, they are still the exception, not the norm (Gould et al., 1990), and suicide contagion is more likely to occur following a celebrity suicide than a noncelebrity suicide (Wasserman, 1984).

While there is theoretical support that suicide imitation may occur through behavioral contagion (Gould, Jamieson, & Romer, 2003), the construct of suicide contagion has been disputed. It is possible that what appears to be "imitation" actually occurs by a different mechanism: a convergence of associated risk among a social group and a shared life stressor of loss (Joiner, 1999).

Additionally, there are some instances of postvention practices associated with paradoxical increases in instances of clusters (Callahan, 1996; Callahan, Meripolski, Rosen, Sattem, & Tierney, 1999). Therefore, when implementing a postvention, schools should remember to first "do no harm" by being cautious that their practices do not inadvertently increase the intensity of the students' reaction or "glorify" suicide.

For standard guidelines on conducting a postvention, a free, comprehensive suicide response toolkit for schools is available from the American Foundation for Suicide Prevention (AFSP) and the Suicide Prevention Resource Center (SPRC, 2011; http://www.sprc.org/resources-programs/after- suicide-toolkit- schools). This toolkit includes recommendations for crisis response, helping students cope, working with the community; guidelines for talking about suicide; and sample death notification statements for classrooms, families, and media. According to these materials, the primary aim when responding to a student suicide is to treat all deaths the same way. This is particularly important in memorializing the student who died, as approaching suicides differently than other deaths may inadvertently glamorize or stigmatize the deceased. Nevertheless, to reduce risk among vulnerable adolescents, schools should provide information about the relationship between mental health disorders and suicide, as well as availability of treatment and resources. Further, schools should make efforts to identify youth who may need additional support (e.g., close friends, family members, classmates, and teammates of the deceased; those who were witness to the death or received communication from the deceased prior to the suicide; youth who have mental health problems, have a history of suicide attempts, have been exposed to prior suicides, or are coping with stressful life events) and connect them with appropriate resources as necessary (SPRC, 2011).

The school may seem an appealing location to host funeral or memorial services, particularly in rural areas where schools may be perceived as central community hubs with ample meeting space. However, it is strongly advised that schools do not host these services and instead remain a neutral location that is focused on its regular structure and routine. Schools should, however, offer opportunities for youth to express their emotions and identify coping strategies. Such conversations should be facilitated in small-group settings; large-scale assemblies should be avoided. Spontaneous memorials may arise on school grounds and should be permitted. While some limitations on informal memorials may be necessary (e.g., a location that is avoidable for those who do not wish to participate, monitoring for concerning or inappropriate behavior), they should be consistent with those for any other student death (SPRC, 2011). The devastating impact of suicide may be particularly pronounced in rural areas, where community members may have long-standing connections with one another. Partnering with community agencies, including mental health providers, clergy, and government and/or law enforcement, may equip schools with valuable resources in the wake of a suicide death.

Recommendations for SPP Implementation in Rural Communities

As a matter of course, we recommend that school-based suicide prevention plans be comprehensive and provide intervention on multiple tiers. Plans should not only consider responses to acutely suicidal students through clinical management and means restriction, but also address both proximal and distal suicide risk factors and increase students' knowledge of and access to potentially lifesaving services. However, given the heterogeneity of rural communities and their available resources, we are unable to provide prescriptive recommendations that will work for all rural schools. Instead, we suggest that districts maximize the effects of suicide prevention programming by systematically considering their available resources and strengths, both within the schools and from the community. Asset-mapping procedures such as those outlined by Kretzmann and McKnight (1993) can be a very useful starting place for determining the fit between the various programs available and the needs and strengths of the school.

Additionally, schools interested in developing a suicide prevention strategy might consider the following recommendations of the Rural Youth Suicide Workgroup (a partnership between the SPRC and the State and Territorial Injury Prevention Directors Association [STIPDA]; STIPDA, 2008). Because, rural communities often have fewer health providers than urbanized areas, it is particularly important that referral sources and procedures be established before implementing program. Schools should be sure that all listings of services, helplines and providers are current and up to date. This is of particular importance when implementing a SPP that includes screening. Since schools often have limited resources to allocate toward SPPs, the school should reach out to state organizations, local agencies, and behavioral health programs and ask for resources and recommendations. Additionally, specific audience for gatekeeper trainings should prioritize those most likely to interact with at-risk youth. A frequent strength of rural communities is that they tend toward strong social networks. Thus, when considering gatekeeper trainings, schools should build upon this resource by appealing to adults in the community beyond the school such as coaches, faith community leaders, and primary care providers as well as youth in the community. To increase sustainability, schools should consider a train-the-trainer model by which they invest in a school employee who can offer repeated trainings as needed.

In addition to the guidelines provided by the Rural Youth Suicide Workgroup, several other pragmatic considerations must be addressed when implementing a multitiered suicide prevention plan. Firstly, schools and districts should identify champions for suicide prevention that have both the access and skills necessary to organize the various elements of the program. This individual or group of individuals should be responsible for facilitating communication among stakeholders, informing school personnel of program initiatives, coordinating with classroom teachers for the delivery of programming, and evaluating outcomes, among other responsibilities. Secondly, school systems should think strategically about how available resources should be allocated to support the three tiers of prevention. Schools must ensure that adequate response is available if a suicide crisis is discovered. For this reason, we recommend that selective and indicated interventions be implemented and/or memoranda of agreement be developed with local agencies to ensure adequate capacity for response prior to implementing universal gatekeeper training interventions. Identifying students with significant suicide risk and not having adequate support to assist these students is a dangerous position in which schools can find themselves. Thirdly, educating all stakeholders about the importance of suicide prevention and eliminating myths around the discussion for suicide is critical to the sustained success of any school-based suicide prevention program. Parents, teachers, administrators, students, and staff may wrongly believe that the discussion of suicide could lead to increased suicidal behavior among students. Allaying these fears and creating buy-in from all involved are necessary steps to implementing a successful prevention approach.

Conclusions

Suicide is a serious public health problem among rural students, and despite the identification of numerous risk factors, it remains exceedingly difficult to predict. There are several evidence-based prevention programs available to rural schools for little or no cost. However, the implementation of a single strategy is unlikely to be effective. Instead, effective suicide prevention is likely to be dependent on a multitiered approach that increases knowledge and access to services, addresses both proximal and distal risk factors, helps school personnel respond to students in distress, and reduces access to lethal means of suicide for students in crisis. Implementing and sustaining these complex initiatives require both dedication from school personnel and buy-in from all stakeholders. However, the results can save the lives of children and adolescents in rural areas. Moving forward, research investigating the cumulative impact of bundled programs can help schools develop more effective solutions to this serious problem.

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The Assessment and Treatment of Anxiety in Rural Settings

10

Sophie C. Schneider, Suzanne Davies, and Heidi J. Lyneham

Introduction

Since the early 1990s, anxiety disorders in children and adolescents have been the focus of a significant amount of research. This research has led to the availability of a variety of reliable and valid assessment tools and evidence-based treatment programs. While the initial focus was on services for traditional face-to-face settings, adaptations have been subsequently investigated and found suitable for delivery in school settings or through use of communications technology. Such programs have improved the accessibility of assessment and treatment to those in rural areas. Following a brief introduction to anxiety, this chapter provides an overview of proven assessment and treatment strategies and the adaptations that have particular relevance to rural settings. Current directions of research are also discussed.

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Understanding Anxiety

Feelings of anxiety are a normal part of life, but some young people experience levels of anxiety which are highly distressing, or which cause significant interference in their life. Internationally, anxiety disorders are the most common mental health disorder in youth, affecting approximately 6.5% of children and adolescents (Polanczyk, Salum, Sugaya, Caye, & Rohde, 2015). A further 32.0–36.5% of adolescents experience distressing and impairing anxiety without meeting full diagnostic criteria (Balázs et al., 2013; Roberts, Fisher, Blake Turner, & Tang, 2015). Anxiety disorders often interfere with normal psychosocial development and are associated with substantial impairment in daily functioning, including problems with peers, at school, or within the family (Rapee, Schniering, & Hudson, 2009). Anxiety disorders in childhood tend to be chronic and put the child at higher risk of experiencing anxiety, depression, and substance-use problems in adulthood (Woodward & Fergusson, 2001).

The most common anxiety disorders experienced by children and adolescents as defined by the fifth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5; American Psychiatric Association, 2013) include generalized anxiety disorder, separation anxiety disorder, social anxiety disorder, and specific phobias. Generalized anxiety disorder is characterized by excessive and persistent worry

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about a range of events or activities. Individuals with generalized anxiety disorder worry more days than not and experience physical symptoms from their worry such as stomachaches, headaches, or sleep disturbances. Examples of common worries are being late, getting in trouble, performance in school work, and dealing with new situations. Separation anxiety disorder involves an excessive fear of separation from key attachment figures, such as parents, or fear of being away from home. These young people fear bad things happening to themselves or their parents when they are separated and experience intense distress upon separation. For example, they may be very distressed when going to school, visiting friends, or being left with a babysitter. Social anxiety disorder is characterized by a fear of negative evaluation such as being embarrassed in social situations. Socially anxious youth often appear very shy and either avoid social situations such as school, speaking to others, or attending social gatherings, or experience intense distress in these situations. Specific phobias involve the excessive and unrealistic fear of specific objects or situations such as dogs, heights, or the dark. The child or adolescent reacts with immediate anxiety to the feared stimulus and may panic and try very hard to avoid the feared object or situation.

Other less common anxiety disorders that young people may experience include agoraphobia (avoidance of a variety of situations due to a fear of embarrassing bodily symptoms or an inability to escape a situation or get help) and panic disorder (recurrent uncued panic attacks, subsequent fear of attacks occurring, and changes in behavior to prevent recurrence). Obsessive-compulsive disorder (repetitive intrusive, unwanted thoughts that are illogical that cause a feeling of anxiety and/or compulsive, repetitive behaviors that temporarily relieve an anxious state), although no longer classified as an anxiety disorder, is also targeted by many of the programs that are discussed in this chapter, reflecting its prior classification as an anxiety disorder.

The Presentation of Anxiety in Rural Populations

A recent Australian study found that the prevalence of social anxiety disorder, separation anxiety disorder, and generalized anxiety disorder was higher in children and adolescents living outside of capital cities compared to those living within capital cities (Lawrence et al., 2015). However, this study did not control for other potentially relevant demographic variables. Lyneham and Rapee (2007) directly compared the presentation of childhood anxiety in rural and urban areas of Australia. After accounting for the relative socioeconomic disadvantage of the rural sample, they found no clinically significant differences between rural and urban respondents' overall scores on measures of anxiety, emotional problems, and behavioral problems; however, urban children were identified as reporting slightly higher fears of physical injury. There was no difference between the percentage of urban and rural parents who reported seeking professional help for their children, which is consistent with findings from Lawrence et al. (2015). There was, however, a difference in patterns of help-seeking behavior with rural families more likely to seek out school counselors and pediatricians for assistance, whereas urban families were more likely to use allied health professionals or specialist clinics. Interestingly, for children who were identified as presenting with a high level of anxiety, a greater impact on the child's social, academic, and home-life functioning was reported by rural mothers compared to urban mothers.

Assessment of Anxiety

Anxiety disorders can be difficult to detect in young people, and where an anxiety disorder is suspected, experts recommend the use of multiple informants and multiple methods of assessment which have been specifically evaluated for use in children and adolescents (Hudson, Newall, Schneider, & Morris, 2014). This is important as parents and children often provide different and, at times, conflicting information about anxiety

symptoms (Silverman & Ollendick, 2005). It is not a matter of one person being correct, rather there are many possible explanations for this disagreement. For example, discrepancies increase when the symptoms are unobservable to others, occur outside of school or family settings, or are socially undesirable (Comer & Kendall, 2004). Other relevant factors include the different presentation of anxiety symptoms in varying contexts, the individual wanting to give a socially desirable response, and the impact of parental psychopathology (De Los Reyes & Kazdin, 2005). Because of these differences, both the parent and child reports are considered to provide useful information, and information from both should be combined to form the final diagnosis (Jensen et al., 1999).

It is also important to consider potential challenges in differentiating between normal and abnormal levels of anxiety at different developmental stages. Heightened anxiety related to the dark in preschoolers or evaluation from peers during early adolescence, for example, is considered to be a normal developmental experience. Comparing the level of fear and any resulting avoidance with typical behavior in peers of the same age is crucial in understanding whether anxiety is abnormal.

Diagnosis of Anxiety

Clinical Interviews

The best practice for assessing anxiety disorders involves the use of semi-structured or structured clinical interviews (Silverman & Ollendick, 2008). These are comprised of a series of questions based on the diagnostic criteria of each anxiety disorder and assess the nature of the symptoms experienced and the impact on the child's life. These interviews produce more reliable diagnoses than unstructured clinical interviews which tend to be less rigorous and result in missed diagnoses (Zimmerman, 2003). The most widely used semi-structured interview for anxiety is the Anxiety Disorders Interview Schedule for Children for DSM-IV: Child and Parent Versions (ADIS for DSM-IV: C/P; Silverman & Albano, 1996). This interview assesses all child anxiety disorders as covered in DSM-IV as well as other common childhood disorders such as attention-deficit hyperactivity disorder (ADHD), depressive disorders, and oppositional defiant disorder. Another diagnostic assessment tool that assesses a broader base of disorders is the Kiddie-Schedule for Affective Disorders and Schizophrenia[1] (K-SADS; Kaufman, Birmaher, Brent, Rao, & Ryan, 1996). Although such interviews are usually conducted face to face, there is increasing availability of adaptations or new tools using telepsychology, the delivery of psychological services through electronic means (American Psychological Association, 2013).

Telephone Assessment

Telephone assessment of child anxiety has the advantage of being highly accessible to rural families. A study comparing face-to-face and telephone administration of a standardized diagnostic interview found that the two produced very similar diagnoses, but telephone administration was quicker and more cost effective (Lyneham & Rapee, 2005). These interviews are detailed and sometimes lengthy, so there are a number of accommodations that can be made to increase engagement during a telephone assessment. First, it is important that there is privacy and a lack of distractions during the call. If visual material such as a ratings scale is used, this should be provided before the call. When the child is being interviewed, it is important that the clinician has a way of contacting the caregiver in case of distress (e.g., having an alternate mobile/cell telephone number for the parent). The interviewer can consider personalizing the call; for example, in one of our recent studies families were provided with a photo of their clinician before the call. As in face-to-face assessment, basic rapport building remains crucial prior to beginning formal interviewing.

Videoconferencing Assessment

There are many structured diagnostic interviews and rating scales for the assessment of adult psychological conditions that have been validated

[1] http://www.psychiatry.pitt.edu/node/8233.

for use via videoconferencing services; however Nelson, Bui, and Velasquez (2011) discuss that there is a need for such measures to be evaluated with young people. A study conducted by Elford et al. (2000) compared the diagnostic efficacy of videoconferencing and face-to-face psychiatry assessments of 23 children aged 4–16 years. Results indicated that 96% of the diagnoses and recommendations made by videoconferencing were consistent with that made through face-to-face evaluations, supporting the use of this technology. The added advantage of visual interaction during the assessment may improve accuracy over audio-only options and can be of assistance to the child's engagement as varied visual cues can be utilized.

Online Assessment

In recent years, structured diagnostic interviews have begun to be adapted for online administration. For example, the Diagnostic Interview Schedule for Children (DISC-IV; Shaffer, Fisher, Lucas, Dulcan, & Schwab-Stone, 2000) and the Development and Well-Being Assessment (DAWBA; Goodman, Ford, Richards, Gatward, & Meltzer, 2000) have online versions that can be completed by families and then scored by clinicians, with the support of computer algorithms to arrive at diagnoses. Such systems have the advantage of reducing the clinician time needed for assessments, and providing greater flexibility in the delivery of assessments. Future development of online assessments has the potential to improve access to expert assessment in rural areas, and to reduce costs associated with service provision.

Challenges Facing Remote Delivery of Interviews

Despite these potential benefits of telepsychology for rural populations, schools and clinicians must be aware of ethical issues that are specific to, or magnified by, this delivery model. In particular, it is vital to effectively manage potential issues regarding privacy and security of confidential information, to ensure adequate protection of young people in the event of concerns about their safety, and to ensure best practice in delivery of services. All telepsychology professionals should be familiar with their relevant professional guidelines, such as those published by the American Psychological Association (2013).

Questionnaire Measures of Anxiety Symptoms

Despite the adaptations made to increase accessibility of traditional face-to-face diagnostic interviews, all diagnostic interviews can be lengthy and require substantial clinician training to complete properly. Where diagnostic assessments are unavailable or impractical to administer, questionnaire measures are a useful method for assessing anxiety symptoms as they are quick and easy to administer, provide severity of specific symptoms, and allow for normative comparisons. Further, children and adolescents may reveal information in questionnaires that they would not disclose in a face-to-face interview. However, questionnaires alone cannot provide enough information to form a definite diagnosis or to confidently differentiate between types of anxiety disorders. Relatively short standardized questionnaires have been developed that can detect children who are experiencing unusually high levels of anxiety. Children with elevated scores on such questionnaires should be followed up, ideally with a thorough diagnostic assessment that would then determine the need for treatment. When used correctly, these types of questionnaires have the advantage of providing numerical scores that can be compared easily to establish normative ranges. In addition, they can be administered with minimal training and scores can be compared over time to track anxiety levels, providing objective evidence of treatment progress and outcomes.

Examples of questionnaires which are free to use are the Spence Children's Anxiety Scale[2] (Spence, 1998) used for youth aged 6–18 years, and the Screen for Child Anxiety Related Emotional Disorders[3] (Birmaher et al., 1997) for youth aged 8–18 years. Both of these ques-

[2] http://www.scaswebsite.com/.

[3] http://www.psychiatry.pitt.edu/sites/default/files/Documents/assessments/SCARED%20Child.pdf.

tionnaires provide self-report from the child or adolescent and parent report about their child. The questionnaires are reliable and valid, are available in a number of languages, and include subscales that correspond to diagnostic categories. To provide further information about functioning at school, assessment of generalized and social anxiety symptoms is also possible from a teacher's perspective using the School Anxiety Scale—Teacher Report[4] (Lyneham, Street, Abbott, & Rapee, 2008). In addition to symptom-based measures, questionnaire assessment of the impact of anxiety is also desirable. Questionnaires such as the Child Anxiety Life Interference Scale[4] (Lyneham et al., 2013) rate the functional impact of anxiety on the child in a variety of areas covering social, academic, and home-life domains, as well as the impact on the life of the parent.

Online Questionnaire Assessment

The use of online questionnaires has become increasingly popular in recent years due both to increased school and home Internet access and the relative ease of data collection for clinicians and researchers. Studies have found general equivalence between paper and online versions of questionnaires for adults (Ritter, Lorig, Laurent, & Matthews, 2004) and children (Raat, Mangunkusumo, Landgraf, Kloek, & Brug, 2007). Online questionnaires can utilize features to decrease the number of missing responses and save therapist time by automatically scoring participant responses. They can improve ease of use for children, such as by embedding pictures or audio files of the questions for young children or those with poor literacy. Using online questionnaires can also reduce delays caused by sending paper questionnaires via slow mail services or from lost mail. Therapists have the option to sign up for managed assessment services that are run by publishers (e.g., www.mhs.com) or, within the limits of copyright, reproduce freely available questionnaires using online survey tools.

[4]http://www.mq.edu.au/research/research-centres-groups-and-facilities/healthy-people/centres/centre-for-emotional-health-ceh/resources/child-and-adolescent-questionnaires.

Treatment of Anxiety

There are different options available for treating child anxiety, and selection of the best option should be guided by factors such as the severity of the child's disorder, age, family functioning, attitudes towards different treatment methods, treatment availability, and cost (Connolly, Bernstein, & Work Group on Quality Issues, 2007).

Pharmacotherapy

The use of medication for the treatment of childhood anxiety has become more common and is recommended when symptoms are moderate to severe or when they impair engagement with therapy (Connolly et al., 2007). A meta-analysis found that 58% of children responded positively to the short-term use of medication (Ipser, 2009). Selective serotonin reuptake inhibitors (SSRIs) are the most widely recommended medications, as data is limited on the efficacy and safety of other frequently used medications such as venlafaxine, benzodiazepines, and tricyclic antidepressants. The medications studied are generally well tolerated but can be associated with side effects such as gastrointestinal upset, sleep disturbance, and increased motor activity. The effects and potential risks of long-term use of these medications in children have not been established (Connolly et al., 2007).

Newer approaches to treatment involve combining different treatment methods, such as cognitive behavioral therapy (CBT) and medication. One study found that combining CBT and an SSRI led to 81% of children improving, compared to 60% with CBT alone, and 55% for medication alone (Walkup et al., 2008). Further research is required to establish the most effective and least demanding treatment options, but combination treatment trials are a promising direction for future treatment. Given that medications are not appropriate for school-led interventions, further discussion of this topic will not be included in this chapter; however, when assessing and treating children and adolescents who present with severe anxiety, consideration should be given to concurrent referral to a psychiatrist to access medication.

Cognitive Behavioral Therapy

CBT is the treatment of choice for childhood anxiety, with a strong evidence base to support its use. Meta-analyses of numerous treatment studies using CBT have found that between 57% (James, Soler, & Weatherall, 2005) and 69% (In-Albon & Schneider, 2007) of children improve to the point where they no longer meet diagnostic criteria for their primary anxiety disorder following treatment. Recent analyses also point towards equivalence in effectiveness of different delivery methods with no difference found in individual treatment compared to group programs (James, James, Cowdrey, Soler, & Choke, 2013). Treatments of 5–8 sessions lead to small effects and more than 9 sessions yield medium-to-large effects (Reynolds, Wilson, Austin, & Hooper, 2012). Findings are inconsistent as to whether parent involvement in treatment leads to better outcomes. Meta-analyses indicate equivalency between these options (James et al., 2013; Reynolds et al., 2012); however, inconsistency in the focus of the parent involvement undermines these analyses. Parents may be involved in their child's treatment purely to support their child's skill use, to learn parenting strategies suitable for encouraging brave behavior, and/or to directly target the parents' anxiety. In general, studies find that parent involvement is more influential for children than adolescents but overall, if only the child can be targeted, the intervention is not undermined substantially (Rapee, 2012).

Most CBT programs for child anxiety are manualized, providing therapist session guides and detailed workbook materials for young people. Each program focuses on a set of skills that target the key behaviors, cognitions, and experiences that have been shown to maintain anxiety. Common elements of CBT programs include psychoeducation, cognitive restructuring, exposure techniques, parenting strategies, and coping strategies. Resources are available that discuss these techniques in detail (e.g., Sburlati, Lyneham, Schniering, & Rapee, 2014).

The Role of Schools in the Treatment of Anxiety

Schools are a critical gateway to accessing mental health treatment. Studies from the United States and Australia have found that schools are the most frequent mental health service providers for rural youth (Costello, Copeland, Cowell, & Keeler, 2007; Lyneham & Rapee, 2007). School counselors and teachers thus play a vital role in the identification, assessment, and treatment of youth anxiety. Interventions for anxiety delivered through schools can reduce barriers to treatment typically encountered by rural families, such as poor access to specialists and need to travel to sessions. Mazurek Melnyk, Kelly, and Lusk (2014) found that a school-based setting reduced attrition and increased the likelihood of teenagers completing a CBT program for anxiety and depression, which was likely to lead to the youth achieving more positive therapeutic outcomes. The rest of this chapter thus focuses on treatment options that can be delivered directly by schools, or facilitated by school staff.

Issues to Consider When Selecting an Intervention

There are a range of interventions that are appropriate for delivery within the school environment, and selection of the best program for a particular school will depend on a range of factors. These will include practical considerations like the cost of a program, availability of mental health professionals, number of young people who may benefit from the program, and ability of the school to accommodate treatment sessions during school hours. It is important that the selected program is supported by the wider school community, including teachers and parents. Families must be provided sufficient information about the proposed intervention, including potential benefits of treatment in the short term and the preventative effect for long-term issues that arise from early intervention. They should also be informed about the requirements for participation and what involvement they are asked to have in

treatment. Prior to beginning a program, it is also important to consider the culture of the school and attitudes towards treatment. School staff should be educated about the presentation and impact of anxiety in children and made aware whether children will be practicing exposure tasks such as coming to class late or making mistakes. If an outside agency is part of the program, it is important that they are perceived as partnering with the school to work towards common goals for treatment rather than trying to impose something on the school.

A possible disadvantage of school-based intervention is the reduced involvement of parents as it is unclear whether this reduces treatment outcomes. Programs often attempt to bridge this gap by providing information to parents about treatment content, or including a limited number of parent sessions in the design. It has been suggested that parent nomination of children, rather than school staff, may help to ensure that parents are committed to the program (McLoone & Rapee, 2012).

Universal School-Based Interventions

Universal programs are designed to be delivered to all students in a school, regardless of their current anxiety, and include programs such as FRIENDS (Barrett & Turner, 2001). Universal programs are intended to prevent later anxiety, and may reduce stigma compared to those which are delivered solely to those with high levels of anxiety. However, universal programs are resource intensive to deliver, and further research is needed to evaluate the success of such programs (Lyneham, Rapee, & Hudson, 2014). Angelosante, Colognori, Goldstein, and Warner (2011) provide a review of programs that have been successfully used to prevent or treat anxiety in schools.

Individual School-Based Interventions

Many anxiety treatment programs have been manualized, and can be delivered directly to students with high levels of anxiety symptoms or high risk for anxiety. Such programs are more cost effective than universal programs, demand fewer resources, and allow for greater confidentiality of student responses. Programs such as the Cool Kids Anxiety Management Program for Children and Adolescents have specific adaptations for school-based face-to-face delivery that balance child and parent involvement with availability and provide built-in flexibility to allow treatment to fit within different timings of school terms (Mifsud & Rapee, 2005). Such interventions rely on the availability of a trained mental health professional within the school. Where this is not available, innovative programs have applied technological innovations to deliver expert treatment directly to schools.

Delivering Individual Treatment via Videoconferencing: A Case Study

Royal Far West (RFW) is a nongovernment, charitable organization based in metropolitan Sydney, Australia. RFW provides a multidisciplinary assessment and intervention services for children and their families from rural and remote regions. Children are referred with a range of non-acute developmental, learning, behavioral, and mental health presentations. Children and their families typically visit the service for a 1-week admission at 6-month intervals. The clinical component of the service is also integrated with an educational model of care. The children's local schools are seen as key partners in implementing the clinical and educational recommendations made by the team.

Anecdotally, children presenting with mental health problems appear to make very limited progress with psychological intervention during a 1-week admission to RFW. Families are often referred to appropriate local services where available. However, even in larger regional areas, families appear to have difficulty accessing regular, intensive psychological therapy to facilitate a significant improvement in the child's mental health symptoms. The RFW pilot anxiety program is an adaption of the Cool Kids Child and Adolescent Anxiety Management Program

(Rapee et al., 2006), with the therapist delivering the program directly to the child via real-time videoconferencing using AdobeConnect. The Cool Kids Program takes a cognitive behavioral skill-based approach to teaching a child, with the support of their family, to manage anxiety. Targeted skills include psychoeducation, cognitive restructuring, parent management, exposure, and coping skills such as problem solving and assertiveness.

Each child attends ten weekly 45-min sessions through a videoconferencing connection at their school. The intervention is delivered by Sydney-based RFW clinical psychologists. The session worksheets from the child workbook are uploaded as a PDF document which is visible to the child and the psychologist at the same time, and both can type and draw onto the document during the session. The interface allows the child and therapist to simultaneously see and hear each other while also viewing the worksheet that they are completing. This enables interaction and collaboration between the child and clinician in a way that best mimics face-to-face therapy. A key support person assists the child in accessing the interface and is available to liaise with the treating psychologist should any issues arise during or after sessions.

Parent involvement is encouraged and facilitated, and parents are provided with a copy of "Helping your anxious child: A step-by-step guide for parents" (Rapee, Wignall, Spence, Lyneham, & Cobham, 2008) which outlines a self-help version of the Cool Kids program. Parents are asked to read chapters of the book throughout the program to enhance their understanding of anxiety management strategies so that practice at home can be facilitated. In addition, after each child session, a session summary and practice tasks are e-mailed to the parents, and parents participate in four 30-min telephone sessions throughout the course of the child's intervention. These calls address understanding of the core components of the program, provide an opportunity for the therapist to gather information about the child's fears and worries, and to troubleshoot any problems experienced.

The RFW pilot anxiety program is only in its initial phase; therefore the effectiveness of the intervention within the context of the delivery model has not yet been analyzed. Of the eight participants who have completed a posttreatment assessment so far, six are free of their primary anxiety disorder based on diagnostic interviews. It is unclear whether reduced parental involvement has a negative impact on treatment outcomes. However, the reduced involvement of the parents, combined with school-based delivery, facilitates inclusion of children who may not typically present for treatment. The therapist-facilitated videoconferencing model reduces the demands placed on school counsellors, and school-based delivery setting may reduce the stigma usually associated with receiving traditional individual therapy. The AdobeConnect platform, however, does rely on the technology of government schools which provides an Internet connection faster and more secure than that typically available in nongovernment school and home settings in rural areas. The cost of delivering the program per child is likely to be comparable to the cost of face-to-face individual therapy when utilizing existing technology networks, though of course it greatly increases accessibility to rural communities.

During the RFW pilot program, key support people across schools identified potential referrals and contacted parents to discuss their child's involvement and obtain consent. However, as this method led to some inappropriate referrals being made, additional training for key school staff about the presentation of youth anxiety may be needed to ensure appropriate referrals. It should also be noted that the key support person within the school setting plays a crucial role in implementing the program. Their role includes monitoring the emotional well-being of involved children and consulting with the treating therapist. The support person can liaise with the class teacher and other staff members to help ensure that the strategies the children learn during the sessions are generalized to the school environment. On a more practical level, the support person can

assist with the scheduling of appointments within the school timetable and assist the child with any technological issues. Developing and maintaining the relationship between the RFW team and each school's key support is vital to the ongoing success of the program.

Internet and Computer-Based Treatments

Over the past 10 years, several well-known child and adolescent anxiety programs have been converted to Internet or computer-based versions that can be used as self-help, guided self-help, or an adjunct to face-to-face therapy. For example, the Cool Teens program (now www.chilledout.org.au) is an adaptation for adolescents of the Cool Kids Child and Adolescent Anxiety Management Program (Rapee et al., 2006). In a study where use of the program was supported by eight very brief therapist telephone calls with the adolescent and three with the parent, 41% of adolescents no longer met the criteria for their primary anxiety disorder at the end of treatment, though this dropped to 26% 3 months later (Wuthrich et al., 2012). Another Internet program with separate child and adolescent versions known as BRAVE-ONLINE has been implemented with weekly e-mail support and 1–2 very brief telephone sessions. At posttreatment and then follow-up, 30–75% of children and 34–68% of adolescents were free of their primary anxiety disorder (March, Spence, & Donovan, 2009; Spence et al., 2011). Finally, Camp Cope-A-Lot, a 12-session computerized CBT program for children is used in conjunction with face-to-face sessions. The children complete six computer-led sessions to learn anxiety management skills and have six sessions with a therapist to put these skills into practice. In a small study, 81% of children who completed Camp Cope-A-Lot were free of their primary anxiety disorder at the end of treatment (Khanna & Kendall, 2010).

Internet programs are highly acceptable to families, particularly adolescents, with few barriers to treatment reported. They also provide a cost-effective treatment with a lower amount of therapist contact and minimal resources required from the families. As it is a treatment format that encourages, but does not require, parent involvement, it might be particularly well suited for families where the parent does not fully recognize their child's anxiety or where there are parent–child relationship difficulties. Research with Internet and other self-help programs consistently find that treatment effects take longer to occur, as seen in the BRAVE-ONLINE trial results above. Program designs and instructions need to reflect this likely progress to ensure realistic expectations of those completing the programs.

Self-Guided Treatment

There are a range of treatment programs which have been developed for entirely self-guided delivery, those completed by a family or an individual without the involvement of a therapist. These may be recommended when anxiety is mild, or as a first step to providing treatment. A meta-analysis of 31 studies of adult self-help programs found that they were effective for treating anxiety, though as expected they were less effective than therapist-guided programs (Lewis, Pearce, & Bisson, 2012). Though few studies have examined self-guided approaches for children, a study by Rapee, Abbott, and Lyneham (2006) found that 26% of children did not meet the criteria for any anxiety disorder after self-guided use of "Helping your anxious child: A step-by-step guide for parents" (Rapee et al., 2008), compared with 7% in a waitlist condition, and 61% in a face-to-face group treatment condition.

Clearly, self-help programs are not a replacement for therapist-guided treatment, but they appear to be useful for some families. Factors which may indicate the use of self-guided materials are lower disorder severity, simple disorder presentation, and high acceptance of the treatment method. Their use has also been promoted as part of a "stepped care" treatment approach, whereby families start with the least intensive treatment option and progress to other options if the firstoption doesn't help sufficiently. All families would thus be exposed to

important information about CBT through self-help methods, and some would not require further treatment. Another possible use for self-help methods is for families to work through these materials as they are waiting for therapist-guided interventions to become available. This could save time as the first couple of CBT sessions are typically focused on psychoeducation, which is well suited to self-guided delivery. Thus self-guided CBT could be sufficient for a minority of families, or the first step in a treatment pathway for others.

Directions for Future Research

Treatment Delivery Models

Researchers are currently investigating ways to implement, facilitate, and integrate available evidence-based treatments to improve availability, cost-effectiveness, treatment uptake, and outcomes. One promising direction is stepped care delivery models, where the provision of services begins with minimal intervention and moves progressively to more intensive modes if improvement is poor or if the initial presenting problem is severe. Full-scale government models of delivery, such as CYP-IAPT in England, have shown success (Shafran, Fonagy, Pugh, & Myles, 2014) and studies specific to child anxiety are under way in our own clinic. The use of this model has grown in popularity as the delivery of low-cost and less intensive interventions as a first step could reduce the demand for an overburdened system (Bower & Gilbody, 2005). Stepped care approaches may provide unique opportunities for rural populations where initial self-help may precede telepsychology services, with only those with the most severe and complex difficulties needing to progress to face-to-face services.

Other treatment delivery models currently being favored are transdiagnostic and modular approaches. While the majority of child anxiety programs are broad based in that they are suitable for any of the anxiety disorders, anxiety is often comorbid with depression, behavioral difficulties, autism, and substance abuse, which creates a need for more flexible treatment. Manualized programs that have a generic cognitive behavioral base are showing promise, both for adults and children (Chu, 2012), and modular-based treatments that allow therapists to select needed skills from an overall treatment framework have been shown to be effective (Weisz et al., 2012) and to improve therapist uptake and attitudes to evidence-based treatment (Borntrager, Chorpita, Higa-McMillan, & Weisz, 2009). As support for these approaches expand, translation into telepsychology programs or school-based implementations is likely to follow, increasing the ability of rural communities to access these treatments.

Predictors of Treatment Success and Failure

Studies have identified broad factors that predict poor treatment outcomes for youth anxiety, such as greater severity of the disorder, presence of an anxiety disorder in a parent, presence of a comorbid mood or externalizing disorder, and female gender of the child (Hudson et al., 2013; Rapee et al., 2009). However, few studies have examined variables that predict treatment success in rural populations specifically, or when using telepsychology or school-based approaches. Further research is required to determine whether the factors recognized as predictors of outcome in standard treatments are also important for rural populations and alternate delivery methods. Better understanding of these factors could be important in determining what type of treatment program will most benefit a child and their family.

Conclusion

The options available for delivering mental health care to rural populations are expanding. Using technology to facilitate contact between children, families, and therapists is known to be effective, and manualized and self-help interventions delivered within schools can reduce treatment burden on limited resources. The availability of telepsychology assessment tools and treatments is increasing regularly, and will greatly enhance availability of specialized services for rural populations. The research for these methods is showing

great promise although there is evidence of unique trajectories of change and additional characteristics of families, children, and adolescents that may influence their ability to benefit from these alternate methods. Embracing and evaluating alternate approaches have the potential to expand the number of young people who access treatment while reducing the frustration experienced by clinicians by providing legitimate and viable options when asked "Where can I go for help?".

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Depression and Rural School Mental Health: Best Practices

11

Carissa M. Orlando, Abby Albright Bode, and Kurt D. Michael

Introduction to the Chapter and Depressive Symptomology

As most mental health practitioners can attest, depression is an impairing, ubiquitous disorder that affects individuals of all ages. With an onset in youth, practitioners working with children and adolescents must obtain the requisite knowledge of how to effectively treat depression among youth. However, in rural areas, provider shortages and barriers to mental health care can keep youth from receiving the treatment they need, requiring community members in rural areas to seek alternative solutions to meeting the mental health needs of depressed youth. The goal of this chapter is to illustrate the usefulness of utilizing schools as a platform for reaching children and adolescents at risk for depression and as a medium for implementing evidence-based practices for youth. The chapter begins with a brief description of depression and the barriers to receiving mental health care for rural youth. The bulk of the chapter is dedicated to describing the evidence-based treatment of depression within a school mental health context, including screening, evidence-based treatments for depression, and treatment modifications/considerations that may be unique to rural areas. The chapter concludes with an exemplar rural school mental health program, as well as a vignette that illustrates the treatment of depression within a rural school mental health context.

Depression is one of the most prevalent mental health disorders. While approximately 7% of the general adult population experience major depressive disorder (American Psychiatric Association, 2013), the prevalence rate of depression is much higher among adolescents, with 11.4% of youth aged 12–17 experiencing a major depressive episode within the past year, 72.6% of whom reported severe impairment as a result (Hedden et al., 2014). Depression rates are equal in male and female children, but starting in adolescence females begin to exhibit rates of depression up to three times higher than males. Although symptoms of depression peak in young adulthood (ages 18 through early 20s), childhood onset of symptoms is associated with a chronic, persistent course of depression (American Psychiatric Association, 2013).

Sad or depressed mood is the most recognizable symptom of depression, but the experience of depression includes a variety of other symptoms, including anhedonia (diminished interest or enjoyment in most activities); marked changes

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in appetite resulting in weight loss or gain; insomnia or hypersomnia; psychomotor agitation or retardation; loss of energy; feelings of worthlessness or guilt; difficulty thinking, concentrating, or making decisions; and recurrent thoughts of death or suicidal ideation. Five or more symptoms must be present during the same 2-week period to be considered a major depressive episode, although symptoms can last anywhere from a few weeks to several years. Symptom presentation differs somewhat in youth: children and adolescents are more likely to experience irritability rather than a sad or depressed mood, fail to meet weight benchmarks expected for their age as a result of appetite changes, and may experience excessive sleeping and eating habits (American Psychiatric Association, 2013).

Diagnostic Prevalence and Mental Health Services in Rural Areas

While the rates of adolescent depression in rural regions are generally similar to those of non-rural regions (Jameson & Blank, 2010; Rost, Fortney, Fischer, & Smith, 2002), individuals living in rural areas may be exposed to higher rates of poverty (United States Department of Agriculture, 2015) and lower family education level, both of which are associated with an increase in psychological problems and risk factors for depression in youth (Costello, Keeler, & Angold, 2001; Dubow, Lovko, & Kausch, 1990). Further, individuals in rural areas may experience worse levels of mental health overall and are more likely to rate their mental health status as fair to poor (Hauenstein et al., 2007; Ziller, Anderson, & Coburn, 2010). Rates of suicide are also markedly higher in rural areas, most notably for males (Eberhardt & Pamuk, 2004; Singh & Siahpush, 2002), with suicide rates for rural youth found to be anywhere from nearly double (Fontanella et al., 2015) to 84% higher than suicide rates for youth in urban areas (Singh, Azuine, Siahpush, & Kogan, 2013).

Further complicating the experience of depression in rural regions compared to more urban areas is a shortage of appropriate mental health services. Rural areas are over four times more likely than urban regions to have a shortage of mental health professionals (Merwin, Hinton, Dembling, & Stern, 2003), and approximately 60% of mental health provider shortages are within rural regions (Bureau of Health Workforce Health Resources and Services Administration, 2016), leaving rural residents to lean on primary care for mental health concerns. However, primary care physicians may not always meet the standards for adequate evidence-based treatment for mental health issues (Wang et al., 2005), with studies finding that rural general practitioners infrequently screen for or identify/diagnose depression, use validated screening measures, or refer patients to mental health services (Frank, Hiskamp, & Pincus, 2003; Jameson & Blank, 2010; Tudiver, Edwards, & Pfortmiller, 2010). In addition to overreliance on primary care, individuals in rural areas tend to rely more on pharmacological than psychotherapeutic treatment of depression (Fortney, Harman, Xu, & Dong, 2010). Unfortunately, the efficacy for treating youth with antidepressants remains unclear (Jureidini et al., 2004), and there are documented instances of increased suicidality in a small percentage of adolescents taking antidepressant medication (U.S. Food and Drug Administration, 2013). A solution to mental health provider shortages in rural areas is needed, specifically one that does not further rely on primary care or pharmacological treatment for depression.

Aside from provider shortages, individuals in rural areas may be reluctant to seek care due to perceived stigma associated with having and receiving care for a mental health condition (Elliott & Larson, 2004; Robinson et al., 2012). Although stigma is a pervasive barrier to mental health care, there is evidence that stigma is greater in rural areas (Hoyt, Conger, Valde, & Weihs, 1997), especially for males and individuals with lower levels of education (Jones, Cook, & Wang, 2011). Augmenting the impact of stigma is rural residents' perception of less anonymity when seeking care (Dubow et al., 1990; Elliott & Larson, 2004; Owens, Watabe, & Michael, 2011), yielding a sense of embarrassment and fear about seeing somebody they know

in the process of seeking care (Elliott & Larson, 2004; Hernan, Philpot, Edmonds, & Reddy, 2010). These personal barriers (e.g., perceived stigma, embarrassment) may be more influential to forgoing service utilization than logistical barriers, such as transportation difficulties (Hernan et al., 2010).

In summary, adolescents in rural areas experience rates of depression and other mental health issues that are equal to or may even exceed those in urban areas. Unlike adolescents in urban environments, rural adolescents have less access to adequate mental health care due to provider shortages and a plethora of additional barriers. Work is needed to ensure that this population receives the mental health care they need, and providers may need to think outside of the proverbial box in order to do so.

School-Based Treatment of Depression in Rural Areas

Because of the implications of reduced access to mental health services among youth in rural settings, one promising solution is to provide care for adolescent depression within the school system. Schools serve as an innovative environment for mental health treatment that circumvents many common barriers to mental health, such as transportation difficulties. Additionally, schools provide several resources beyond the scope of general education for students (e.g., meal services, vocational planning, physical health screenings) and youth spend the majority of their time in schools, making schools a perfect network to integrate evidence-based strategies for improving mental health outcomes in rural youth. Although schools have served as mental and physical health providers for youth for years (Weist & Murray, 2007), there has not been systemized focus on evidence-based treatment and assessment of depression in schools, topics that could serve to bridge the treatment service gap for those in rural regions. Therefore, this section serves to discuss the potential that screening and treatment of depression in schools can serve in rural settings.

Identification of Students with Depression

Identifying students struggling with depression within the school system is difficult, as internalizing disorders such as depression and anxiety are less "visible" when compared to externalizing disorders. While some students are identified for treatment via parent referral or teacher concerns, many remain undetected. Students in need of mental health treatment for depression are therefore placed in a situation where they need to seek out treatment on their own, which may be difficult in rural environments due to many of the aforementioned barriers. Thus, schools should implement a process for school-wide screenings for students with internalizing disorders (Warner & Fox, 2012). For instance, record review—attendance, grades, disciplinary actions, and student demographics—was assessed in one study as a possible means of identifying students in need of intervention for depression in lieu of time-consuming individual screening, but was found to be less effective than individual screening, failing to identify anywhere between 50 and 75% of students at risk for depression. Thus, it is not recommended that record review be relied on as a sole means of identifying students with depression, and individual screening measures should be used instead of, or in addition to, record review. However, school record review may be helpful in targeting groups of students who may require further screening for depression (Kuo, Vander Stoep, Herting, Grupp, & McCauley, 2013).

Depression screening measures can be completed by students themselves, provided that the measure is age appropriate; research has shown that children as young as 8 years old are able to reliably report on their own internalizing symptoms (Michael & Merrell, 1998). Administration of screening measures can be conducted by teachers, school counselors, or nurses; however, the individual scoring and interpreting the measures should receive proper training in the measure, and it is preferred that this individual have some background in mental health. Only psychometrically sound screening measures should be used to identify students with depression. In addition to

psychometrics, school personnel should consider cost, time required for use, and extent of training required when selecting a measure to administer (for a review of psychometrically sound and feasible measures, see Carnevale, 2011).

Identification of students at risk for depression can also be made via awareness of symptoms that can serve as indicators or predictors of current or future depression. Seeley, Stice, and Rhode (2009) reported that aside from symptoms of depression themselves, poor school and family functioning, low levels of support from parents, symptoms of bulimia, and delinquency served as significant predictors of depression in 10th- and 11th-grade females. Kuo et al. (2013) noted that students eligible for a depression intervention had a higher number of absences, lower grade point averages, more disciplinary actions taken, and were more likely to be in a special education program. Similarly, a screening of rural adolescents revealed that depressive symptoms were significantly related to conflict with parents, peer difficulties (especially losing a close friend), trouble with the police, and a death in the family (Puskar, Tusaie-Mumford, Sereika, & Lamb, 1999).

Regardless of the means of student identification, it is helpful for schools to have a process in place whereby referrals can be made. A single staff member or small group of staff members—such as school counselors or nurses—can be designated as the "gatekeeper" for mental health referrals if they do not provide services themselves. This individual can meet with students identified as struggling with depression, more thoroughly assess the student's symptoms and any potential risk of harm to self, and present the student and his or her parents with options for treatment. This individual can also check in with the student periodically throughout treatment to ensure that the student's needs are being met and to maintain a good relationship.

Evidence-Based Interventions for Depression: Cognitive-Behavioral Therapy

Although adolescent depression can be treated with medication, studies suggest that adding an evidence-based psychosocial therapy (i.e., cognitive-behavioral therapy [CBT]) to the treatment of depression increases the effect and safety of the medication, with a combination of psychosocial treatment and medication producing a high percentage of treatment response (the TADS Team, 2007). Although there are a number of psychosocial treatments for child and adolescent depression available to practitioners, cognitive-behavioral therapy has the most empirical support for reducing symptomatology in youth and is considered the front-line treatment for depression (for review, see Compton et al., 2004).

CBT aims to help children, adolescents, and adults overcome adverse symptoms by investigating and targeting change in their thoughts and behaviors. CBT for depression has been incorporated into school-based mental health in both group (e.g., Lewinsohn, Clarke, Hops, & Andrews, 1990) and individual (e.g., Shirk, Kaplinski, & Gudmundsen, 2009) formats, with both formats demonstrating significant decreases in depressive symptoms. In fact, Shirk et al. (2009) found that 64% of adolescents who received a 12-session treatment of CBT in a school setting no longer met the criteria for any depressive disorder. Although it is possible to tailor this treatment to the needs of the individual client and the rural environment, CBT generally consists of a series of core features. This chapter briefly reviews core and optional components of CBT; this information is based both on evidence-based treatment manuals of the cognitive-behavioral treatment of depression and the authors' own experiences incorporating CBT into a rural school-based treatment environment. Readers interested in learning more about CBT are encouraged to read one of many excellent treatment manuals, such as Beck's (2011) *Cognitive Behavior Therapy: Basics and Beyond* or Creed, Reisweber, and Beck's (2011) *Cognitive Therapy for Adolescents in School Settings.*

Core Components of Cognitive-Behavioral Therapy

Psychoeducation

Early in treatment, practitioners should give students developmentally appropriate information

about depression and typical symptoms. Practitioners should be sure to list symptoms not automatically associated with depression, such as sleep and appetite disturbances, as well as symptom presentations that may be more apparent in youth, such as irritability and failure to gain weight. Students should be encouraged to share if or how they have experienced these symptoms. Practitioners should also orient students to the process of treatment via CBT and the roles/expectations of both the student and practitioner. If family involvement in treatment is indicated, the expectations of the student and the family members should be reviewed at this time. Oftentimes, discussing a treatment contract that outlines treatment goals and expectations of the student, therapist, and family is completed.

Mood Monitoring

Mood monitoring should start early in treatment to give the practitioner a baseline for student mood. The student is given a chart or calendar and instructed to rate their mood on a numerical scale (e.g., 1–10). Younger students can use smiley faces to describe their mood, if needed. Some students may benefit from anchor points; here, the practitioner asks the student to recall a time during which their mood was a 1, a 10, etc. Students can either provide a single rating for their daily mood or note changes in their mood during different times of day; the latter is helpful for noting patterns in mood fluctuations tied to certain times of day. The student and practitioner should review the chart and discuss the student's mood for the past week, as well as any extreme fluctuations. Mood monitoring can be continued throughout treatment as a helpful way to chart changes in mood, especially when using new skills, such as pleasant activity scheduling. Technology can be utilized for monitoring; there are several free smartphone applications that allow individuals to track daily moods. Pacifica is an example of a free smartphone application that can be used for both depression and anxiety. This application can be used to track and monitor moods over time, provides options for relaxation activities, and allows users to complete thought records, identify thinking traps, and reframe maladaptive thoughts. Additionally, mood monitoring information can be shared with a therapist if the student wishes. More information about useful smartphone applications that can be used with a variety of internalizing disorders can be found on the website for the Anxiety and Depression Association of America (ADAA; ADAA, 2016).

Behavioral Activation

Youth struggling with depression tend to have a restricted range of activities and lack motivation to engage in pleasant activities. However, a lack of pleasant activities correlates with a lack of positive reinforcement, which contributes to depression (Lejuez, Hopko, & Hopko, 2001). Practitioners can work with students to help them brainstorm and plan to engage in pleasant activities during their week, which increases the amount of pleasure and mastery the adolescent experiences on a daily basis. This is especially helpful for students who present with anhedonia (commonly described by youth as "boredom"), social withdrawal, and a limited number of activities in which they engage. In fact, for students presenting with mild-to-moderate symptoms of depression that manifests largely in restriction of activities and anhedonia (as opposed to a primary manifestation of negative cognitions), behavioral activation may serve as the sole treatment of depression, and has been shown to reduce symptoms as a stand-alone treatment for rural adolescents with depression (e.g., Wallis, Roeger, Milan, Walmsley, & Allison, 2012). Behavioral activation is also a well-liked component of treatment for youth—in interviews with adolescents receiving treatment for depression, 71% reported that behavioral activation was the most effective intervention strategy (Ng, Eckshtain, & Weisz, 2015).

Pleasant activity scheduling should begin with an assessment of the student's baseline level of weekly activities. This can be accomplished by providing the student with a blank weekly calendar with specific times listed down the side of the page and asking him/her to fill in the activities in which he/she was engaged during each time. Technologically savvy students may enjoy completing this calendar on their phone. As the

practitioner and student review this together in the following session, the connection between mood and pleasant activity (or lack thereof) can be observed and reflected upon. The practitioner and student then brainstorm pleasant activities in which the student can engage. Activities chosen should (1) produce some level of positive emotion and/or (2) give the student a sense of mastery. It is also helpful to ensure that at least some of the activities chosen by the student do not require substantial financial resources or are not contingent on external circumstances. For example, a student might list going for a walk outside as a potential positive activity, but as this activity might not be safe or possible during nighttime or adverse weather, it is important that other activities are available for the student as well. Additionally, while many students find listening to music on a smartphone or MP3 player an effective pleasant activity, practitioners should keep in mind that these devices may be taken away by parents as punishment for misbehavior. After brainstorming positive activities, the practitioner and student decide on which activities the student would like to engage during the week and problem-solve around possible barriers to activity completion. A specific time is chosen during the day for the student to engage in the activity; practitioners can encourage students to set a reminder alarm if he/she is concerned about forgetting the activity. Students might benefit from creating a list of pleasant activities, and younger students may enjoy creating a decorative display, a "grab bag" of activities, or some other creative, tangible product.

On occasion, depressed adolescents have difficulty brainstorming pleasant activities, or may be pessimistic about the possibility of engaging in the activities. In these cases, it may be helpful for a practitioner to have a ready-made list of a large number of pleasant activities for the student to read over, although this should only be used after it is evident that the student is unable to generate activities him/herself. This might also be true of students in rural settings in which there are few available activities and resources, or students living far from more populated areas of the town. In these cases, the practitioner might have to assess for resources around the home, or activities in which the student used to enjoy before feeling depressed. Out-of-the-box activities may also be helpful for use with rural populations. For example, one student suggested riding his four-wheeler on his family's property as a possible pleasant activity. Another student reported that she enjoys helping her family take care of their goats.

Automatic Thought/Belief Identification and Cognitive Restructuring

Automatic thoughts are the immediate, frequently unnoticed thoughts that intervene between an event or a situation and the individual's emotional response to the event. These thoughts can be inaccurate and may fall into one of several common cognitive distortions or thinking errors. For example, one specific cognitive distortion is "minimizing the positive," wherein a student will neglect the positive or neutral aspects of a situation and only focus on the negative aspects. Students struggling with depression may exhibit a number of cognitive distortions, as well as pattern of negative thinking about themselves, others, and the world around them. The practitioner can help the student begin to notice these as a good first step towards identifying and challenging these distorted thoughts and beliefs. Generally, this is accomplished by having the student complete a thought record. Thought records can contain many different categories, but generally the most important categories for the student to record are the situation, the emotion elicited, and the automatic thoughts. Subsequent behaviors can be included in thought records as well. Sometimes it is easy for students just starting in therapy to pay attention to times in which they felt a strong negative emotion (e.g., sad, angry) and write down the situation and automatic thoughts after identifying this emotion. For students who might need more concrete direction, the practitioner can specify what emotions to which the student might pay attention (e.g., the student can be asked to write down one situation in which the he/she felt sad or lonely).

When maladaptive thoughts are identified, the practitioner and student can work together to evaluate, challenge, and restructure these thoughts, with the goal of replacing maladaptive thoughts with rational and realistic thoughts. A common misconception students may have is that overly negative thoughts are to be replaced with positive thoughts; the practitioner can instruct the student that overly positive thoughts can also be unhelpful and unrealistic (providing examples), and explain to the student that the goal is to think more realistically. When evaluating a thought for accuracy, the practitioner can ask the student to gather evidence for or against the thought, describe worst/best-case and most realistic scenarios, generate alternative explanations, and/or consider what he/she would tell a friend in the same situation. After a thought is evaluated, the student is asked about their new perceptions of the realistic nature of the thought; if it is concluded that the thought is not realistic, the student is asked to generate a more accurate thought that will replace the maladaptive thought. With younger students, this process should be simplified into concrete examples, and visualizations of the process are helpful. Younger students may also benefit from having the process reframed as being a "thought detective" who seeks out clues to see if a thought is real or not. Using examples from crime-solvers or detectives from children's television programs—such as Scooby-Doo—may be helpful here.

It should be noted that while students struggling with depression do exhibit a pattern of negative thinking, it is also possible that their mood can be impacted in a valid way by adverse circumstances in their life. For example, a student affected by familial poverty, job loss, or mental illness may have automatic thoughts related to these issues that are not maladaptive. This may be especially true of students living in rural areas with limited resources. If a practitioner suspects that the student's cognitive response to adverse circumstances is adaptive or valid, the practitioner can help the student utilize his or her coping skills to help with the situation.

Remembering to complete and return thought records and other written homework can be a challenge for students. Therapy in the context of the school setting can help with this problem, as the student and the practitioner are in the same location for longer periods of time than in a traditional treatment setting. If the practitioner has time, check-ins can be done the day before the scheduled session, during which homework reminders are given ("We'll be meeting tomorrow during lunch—don't forget to bring your thought record!"). Additionally, the student can be provided with a "therapy folder" to keep with his/her usual academic notebooks and folders. Technology can be utilized as well, with reminder alerts scheduled into smartphones or tablets, or homework completed entirely on technological devices (this can be particularly helpful for students who have difficulty keeping up with paper documents).

Optional Components of Cognitive-Behavioral Therapy

Relaxation Training

Relaxation training is helpful for working with adolescents struggling with anxiety or anger control/emotion regulation difficulties, but can be used with depressed adolescents as well. Deep breathing, mindfulness skills, guided imagery, and progressive muscle relaxation are examples of relaxation exercises that can be used. If feasible, instructions for these techniques can be recorded and a copy of the recording can be provided for the adolescent to use during at-home practice, or students can record in-session relaxation training on a phone or other device.

Sleep Hygiene

Hypersomina and insomnia are symptoms of depression, and youth experiencing depression are more likely to experience sleep disturbances than those without depression. There is also some evidence that sleep disturbances may predict future depression (for meta-analysis, see Lovato & Gradisar, 2014). Students may present with erratic sleeping patterns, such as frequent or lengthy napping, staying up excessively late, and no consistent bed- or wake times. Sleep

disruptions can negatively impact a student's ability to concentrate and perform in school, and are linked with negative behavior outcomes and emotionality (Blunden, Hoban, & Chervin, 2006). If a student is experiencing sleep disturbances that might be impacting his/her daily life or contributing to his/her symptoms of depression, a practitioner may consider helping the student improve his/her sleep hygiene. Sleep hygiene techniques include avoiding daytime napping, avoiding caffeine and other stimulants too close to bedtime, keeping regular sleep and wake times throughout the week, using the bed only for sleep and not for other activities (e.g., homework completion, watching television), and establishing a regular bedtime routine (National Sleep Foundation, 2016). Identification and problem solving of barriers to improving sleep hygiene may be needed to ensure success. Psychoeducation about the importance of sleep and its relationship with concentration and mood difficulties may also need to be provided, as some students may not be aware of the detriments of an erratic sleep cycle.

Problem Solving

Although not a specific component of traditional CBT, problem-solving skills can be helpful to teach when working with depressed students. Problem solving consists of five steps: (1) identifying the problem in specific terms; (2) brainstorming many different solutions; (3) evaluating the solutions generated during brainstorming, including short- and long-term consequences of each option; (4) choosing the best solution; (5) rewarding himself/herself. Anagrams or other mnemonics can be used to help students remember the steps. Students can practice problem solving both through vignettes presented by the practitioner and by applying these skills to problems in his/her own life that are brought up organically in session.

Interpersonal Skills

Although more traditionally included in interpersonal psychotherapy (discussed below), interpersonal skills can be included in a structured CBT treatment of depression (e.g., Lewinsohn et al., 1990). Interpersonal skills taught can include social skills, communication skills, and conflict resolution skills. This may be a helpful addition to CBT if the student reports or appears to exhibit difficulties with his/her interpersonal relationships.

Interpersonal Psychotherapy for Adolescent Depression

Although CBT has the largest amount of empirical support for the treatment of child and adolescent depression, it is not the only evidence-based treatment for depression. Interpersonal psychotherapy for adolescent depression (IPT-A)—an adaptation of traditional interpersonal psychotherapy—also has empirical support for reduction of depression symptoms and improvement of social functioning (Mufson, Weissman, Moreau, & Garfinkel, 1999). IPT-A has been implemented in school-based mental health clinics with similarly positive outcomes (Mufson et al., 2004) and can be administered in group as well as individual sessions (O'Shea, Spence, & Donovan, 2015; Young, Kranzler, Gallop, & Mufson, 2012).

IPT shares some components of CBT, such as the importance of early psychoeducation, regular mood monitoring, and assignment of homework for in-between session practice. However, IPT emphasizes the ways in which interpersonal processes and relationships impact an individual's mood, and treatment focuses around identified interpersonal problem areas (i.e., grief, role transitions, role disputes, and interpersonal deficits). Individuals participating in IPT learn and practice interpersonal skills and communication strategies to help improve their relationships with others. Social skills and parent-child conflict resolution are specifically stressed in the adolescent adaptation of IPT-A (Mufson & Sills, 2006). IPT-A may be a helpful therapeutic choice for adolescents experiencing depression due to interpersonal stressors, such as familial

separation or divorce, frequent parent-child conflicts, or difficulties with peers.

Modularized or Manualized Treatments?

Although these evidence-based treatments for depression are available in manuals for interested practitioners, it may not always be feasible for practitioners—especially school-based practitioners—to implement a manualized treatment. Manualized treatments limit the flexibility with which a practitioner can individualize treatment to each student's unique needs. Additionally, rigidly adhering to a manual can hinder the development of a strong therapeutic alliance, an important component of working with youth (discussed later). An alternative to manualized treatment formats is modular treatments, which allow the practitioner to choose from a variety of empirically supported practice strategies in an effort to tailor treatment to each individual while maintaining adherence to evidence-based strategies. Chorpita and Daleiden (2009) make note of several evidence-based "common elements" supported for use with youth with mood disorders, including psychoeducation, activity scheduling, cognitive therapy, problem solving, communication/social skill training, and relapse prevention. After initial assessment with a student, a practitioner can choose the most relevant common elements for the student's symptom presentation. An example of a school-based modular treatment for depression and anxiety in middle and high school students is the Student Emotional and Educational Development (SEED) project. Conducted in both rural and urban schools, students received approximately 4–12 sessions of individual therapy, with modules based on the individual students' needs. Students participating in the SEED project experienced significant reductions in symptoms, with approximately two-thirds of students no longer reporting clinically significant symptoms of depression at posttreatment (Michael et al., 2016).

Necessary Treatment Components Regardless of Therapeutic Orientation

Certain aspects of therapy should be incorporated into any treatment of depression, regardless of the specific intervention chosen by the practitioner. One of the most important aspects of any treatment—especially when working with youth—is the development of a strong therapeutic alliance. A therapeutic alliance is considered one of the core competencies in which a practitioner should engage, regardless of therapeutic orientation (Sburlati, Schniering, Lyneham, & Rapee, 2011), and the alliance alone has demonstrated an association with improved treatment outcomes for children and adolescents treated for depression via CBT (Shirk, Gudmundsen, Kaplinski, & McMakin, 2008). Therapeutic alliance is particularly relevant for rural youth who may be distrustful of or who perceive stigma related to seeking help from a mental health professional. Initial sessions of any treatment should consist of the practitioner and student getting to know one another, with the goal of fostering a good relationship and trust. Practitioners can form a therapeutic alliance with younger students by engaging them in fun games and activities, and can form an alliance with older students by conversing about their hobbies, friends, and interests.

Practitioners should exhibit traits of genuineness and unconditional positive regard, and should position themselves as advocates for the student and his/her needs (as opposed to the needs of the parent or the school). This may be particularly difficult if the student has been referred for services by an outside source expecting a particular outcome, such as a school administrator hoping for a decrease in behavior referrals. In cases where the student did not independently seek out services, a practitioner may need to put in extra effort to build rapport and help the student see the benefits of this helping relationship. Practicing patience with keeping the

initial pace of therapy slow and not pushing students to talk are also necessary skills to building a strong alliance (Sburlati et al., 2011).

Practitioners working in rural environments should also take care to reduce stigma around treatment. Asking students about their perceptions of mental health services is a good way to identify any maladaptive thoughts about treatment (e.g., "only crazy people need therapy"). Concerns about undergoing psychotherapy can be alleviated by labeling it as "skill building" or framing the treatment as a type of class instead of therapy; this is easy to do for CBT, which involves learning and practicing a number of skills. Unless needed (e.g., for billing purposes), diagnostic labels should be avoided; however, a thorough assessment of the student's symptoms should still occur at the onset of treatment. Additionally, it is appropriate to name the student's collection of symptoms as "depression" or even encourage the student to come up with his/her own name for depressive symptoms—this may help the student conceptualize depression as something external that can be combated through skills learned in treatment (an adaption of externalizing conversations, as described in White, 2007). In order to reduce stigma and increase confidentiality surrounding seeking out school mental health services, mental health staff should pay attention to the names of treatment programs and centers. For example, naming a treatment program a "Depression Program" may lead to a disinclination for students to be associated with the program. However, nonspecific names with no references to mental health conditions are likely more palatable to students. An example of this is the previously described Student Emotional and Educational Development program, which uses the acronym SEED (Michael et al., 2016); here, a referral to mental health services can be called "participating in the SEED program," which contains no obvious reference to mental health treatment.

Consideration should also be given to the location of therapy sessions, as well as the room design, as these serve as protectors for student's confidentiality. Therapy rooms should be private and inaccessible to outside parties when being used by practitioners; a room with large windows or a publically accessible room such as a teacher's lounge is not appropriate for therapy. The way in which a student is called from class to therapy sessions should also protect the student's confidentiality. Although not relevant for sessions held before or after school, or for students who are able to remember weekly session dates/times and come independently, students who are called from class run the risk of confidentiality breaches. For example, a call for a student over a classroom phone or intercom specifying that the student is expected at the mental health center or a well-known practitioner coming to meet the student at his/her class may result in an unintentional disclosure that the student is receiving mental health services. Thus, students should be asked to report to generic or typical school locations (e.g., "the front office," "guidance") when teachers or other students are within earshot. Practitioners and students can jointly brainstorm other ways to protect the student's confidentiality, if other concerns arise.

Regardless of the intervention selected for the treatment of depression, regular monitoring for risk of harm to self should be included throughout treatment. Thoughts of death, suicidal ideation, and suicide attempts are strongly linked with depression (American Psychiatric Association, 2013), and suicide is the second leading cause of death for youth aged 10–24 (Centers for Disease Control and Prevention, 2014). This is of particular concern in rural areas, where the suicide rate for youth is more than double the suicide rate in urban areas (Fontanella et al., 2015; Singh et al., 2013). As suicide and other crisis events are covered in another chapter in this handbook, authors will not discuss this phenomenon beyond a simple recommendation that practitioners working with youth with depression should be well educated on risk and warning signs, thorough risk assessment, and crisis intervention/safety planning for suicidality.

Thinking Outside the Box: Considerations and Adaptations for School-Based Treatment for Depression in Rural Environments

Service Delivery Providers

An important consideration for the treatment of depression in the school setting is who will be available to administer the intervention. While trained mental health professionals (e.g., licensed psychologists, counselors, and social workers) are the ideal choice for administration, students in need of services may outnumber the availability of trained professionals, especially in rural environments where there may be a lack of qualified treatment providers (Merwin et al., 2003; Wang et al., 2005). Thus, in order to meet the mental health needs of students, interventions may be implemented by nontypical treatment providers.

Graduate Students

Schools within reasonable traveling distance of a university with a mental health graduate training program can consider partnering with the university to gain student assistance with service delivery. Graduate-level students receiving training in a mental health field can provide supervised services in the school setting and serve as a low-cost option for meeting the mental health needs of students. An example of this is the Assessment, Support, and Counseling (ASC) Center—discussed in more detail later—at which graduate-level clinicians provide mental health services to high school students, resulting in significant improvements in reported mental health symptoms (Albright et al., 2013). While graduate students are excellent providers of school-based mental health services, they may not be available during the entirety of a school week due to competing demands, such as graduate coursework. Additionally, graduate students affiliated with a university far away from rural schools may not be able to be "on call" if a student is in crisis. Thus, it is important that schools designate an on-site mental health individual to handle mental health emergencies if they arise.

Nurse Practitioners

Pediatric nurse practitioners that have received specific training in efficacious mental health treatments may be able to deliver effective treatments to depressed adolescents. The Creating Opportunities for Personal Empowerment (COPE) program is an example of a CBT group treatment for adolescent depression implemented by a pediatric nurse practitioner that resulted in significant decreases in symptoms of depression at both post-intervention and 4-week follow-up (Melnyk, Kelly, & Lusk, 2014). Nurse practitioners as mental health service providers may be a helpful alternative for schools that do not have access to typical mental health providers but have a nurse practitioner on staff. Additionally, this may reduce the barrier of stigma surrounding mental health care, as visiting a school nurse may be viewed as a less stigmatizing behavior in a rural area than visiting a mental health professional.

Teachers

Teachers can be utilized to provide some information regarding depression to students, especially in the context of a structured depression prevention program. An example of this is the Adolescent Depression Awareness Program, which was administered in 9th-grade health classes and was shown to increase literacy about depression as well as help-seeking behaviors for those struggling with depression (Ruble, Leon, Gilley-Hensley, Hess, & Swartz, 2013). Such a program can be helpful to reduce stigma surrounding mental illness in rural environments. It is important that teachers administering such a program receive training about program implementation. Additionally, it is vital that schools adopting such a prevention program have a system in place for meeting the needs of students identified as having symptoms of depression or other mental health issues via this program.

Peers?

Considering the fact that social networks in rural communities may have a stronger influence on member behavior than in urban communities, Noel, Rost, and Gromer (2013a, 2013b) developed

a CBT-based depression prevention program for middle school females implemented by high school juniors and seniors. The authors noted that these older students are "natural leaders in the community" and suggested that middle schoolers, beginning to seek out more autonomy from adults, might be more influenced by older peers than adult figures. This unconventional form of service delivery yielded some promising results: participants in the treatment groups exhibited a significant decrease in depression symptoms from pre- to posttest as compared to participants in a wait-list control group. However, it is important to note that participants were prescreened for inclusion in the study, and participants who met full criteria for major depressive disorder or endorsed suicidal ideation were excluded from the study. Thus, these results are not representative of a more severe population. Furthermore, the authors modified treatment considerably to ensure student safety. For example, adolescents in charge of service delivery underwent intensive training, and the implementation manual was more detailed than traditional manuals. The authors monitored each session via telecam to ensure implementation adherence and to identify any students appearing to be a risk to themselves or others, and a school district employee was present in the room during all groups (Noel et al., 2013a, 2013b).

Naturally, there are some modifications to this treatment program that should be made if the program was to be implemented without the support of university researchers. For safety reasons, students considered for the group should be thoroughly screened or interviewed before the group begins to ensure that their symptoms are not too severe for such a group; in fact, this group might function more safely as a depression prevention program or mentorship program for at-risk students not yet exhibiting symptoms of depression rather than a treatment group for those currently experiencing depression. A school staff member with mental health background and training (e.g., a licensed clinical social worker) should be responsible for the training of facilitators and monitoring of implementation adherence, present in the room during all groups, and prepared to intervene if a group member exhibits mental health symptoms at a severity that is beyond the competency of the facilitator, such as the expression of suicidal ideation.

Training for School-Based Mental Health Providers

Regardless of the individual providing school-based services, it is important that providers are well trained in evidence-based treatments for depression and regularly update their knowledge on treatments for depression. Ideally, practitioners unfamiliar with a certain treatment for depression should engage in in-person trainings that contain both didactic and role-playing or practice components. Practitioners should also receive supervision and/or consultation when first trying out a new treatment for depression. That being said, attending in-person trainings may be difficult for a mental health provider living in a very remote area, and supervision and consultation from other providers in rural areas may be nearly impossible to obtain. Fortunately, there is evidence that school mental health providers can effectively be trained to implement evidence-based treatments for depression—specifically CBT—through a variety of methods. In a study in which therapists received either day-long workshops detailing skills used in specific modules or the principles of CBT and active learning, or a computer-based training via a DVD, no differences were found between each method. This indicates that computer-assisted training may be an effective method of training in CBT, which may be helpful for rural school mental health providers for whom in-person trainings are not feasible (Beidas et al., 2012).

Group Therapy for Depression

Treatment for depression—especially CBT—can be effectively implemented to treat depression in a group format as well. For example, the adolescent adaptation of the Coping With Depression (CWD) program is a moderate-length (16 sessions) CBT-based depression treatment

significantly reduced symptoms of depression, with results still evident at 2-year follow-up (Lewinsohn et al., 1990) and across multiple studies, although the overall effect size remains small (Cuijpers, Munoz, Clarke, & Lewinsohn, 2009). Groups can also expand beyond the core components of CBT to include other positive health behaviors or life skills. An example of this is the COPE program, a school-based group aimed at reducing symptoms of depression and anxiety that consists of seven sessions of traditional CBT and eight sessions of content related to physical health, activity, and nutrition. Students participating in COPE exhibited a significant decrease in symptoms of depression both at post-treatment and 4-week follow-up, with moderate-to-large effect sizes (Melnyk et al., 2014).

Generally speaking, CBT groups are fairly structured and do not allow for the same tailoring of treatment to specific students as does individual therapy, but contain the same core concepts of CBT. Group therapy may be a helpful, potentially cost-effective alternative to traditional individual therapy, as one practitioner is able to see multiple students at the same time; this may be a viable option for practitioners working in schools in which a large number of students experience depression. Group therapy can also allow students to feel socially supported by peers experiencing similar struggles. However, implementing group therapy has logistical challenges in school settings, as bus schedules and extracurricular commitments may prohibit students from attending a group before or after school, and finding a time during the school day that does not keep multiple students away from valuable instructional time can be difficult. Additionally, students may have concerns about confidentiality. The importance of confidentiality must be regularly stressed within the group, as believing one's personal disclosures could be discussed with outside individuals might make students reluctant to participate. Practitioners should also find a spot for the group to meet that is private, is not accessible to students, and would remain undisturbed while the group is in session.

Online Treatment Programs for Depression

Online programs are one potential option for rural mental health care that circumvents several of the major barriers to treatment in rural areas. Evaluations of online programs for depression have revealed promising outcomes. A meta-analysis of a small number of international computerized/online CBT programs for child and adolescent depression found that these programs were superior to control conditions, with an overall moderate effect size (Ebert et al., 2015). MoodGYM (Calear, Christensen, Mackinnon, & Griffiths, 2013) and Project Competent Adulthood Transition with Cognitive-Behavioral and Interpersonal Training (CATCH-IT; Van Voorhees et al., 2009) are two examples of free online programs aimed at preventing and reducing depression in school-aged youth, implemented in the classroom and primary care setting, respectively. Both programs are linked with significant reductions in depressive symptoms in youth (Calear et al., 2013; Van Voorhees et al., 2009) and there is evidence that program adherence (i.e., completing at least 20 out of 29 MoodGYM exercises) is related to symptom reduction, especially in males. Notably, students from rural areas completed more exercises than did students from urban areas (Calear et al., 2013).

These results suggest that online or computerized treatments for depression in youth may be a viable alternative to face-to-face services in rural areas that lack mental health service providers. Online treatments for depression may also be a more preferable means of mental health service for rural youth who are concerned about a lack of confidentiality or stigma related to seeing a mental health professional in person. Additionally, online programs that are self-guided may be more acceptable to rural individuals who report a desire to cope with mental health issues on their own. That being said, youth completing these programs should still be monitored by a mental

health professional in some capacity to ensure that they are completing the online exercises and their symptoms are not escalating in severity. Online programs are more appropriate for youth at risk for or experiencing mild symptoms of depression; youth experiencing severe symptoms of depression or suicidality should receive in-person treatment. In fact, participants were excluded from Project CATCH-IT if they met full criteria for major depressive disorder or were experiencing suicidal ideation or intent (Van Voorhees et al., 2009).

Exemplar School Mental Health Program: The Assessment, Support, and Counseling (ASC) Center

The ASC Center is an interdisciplinary, integrative school-based mental health center that provides outpatient mental health services to students in need. Affiliated with a local university, the ASC Center works as a partnership between the university and the schools it serves. The ASC Center was first implemented into a rural high school in western North Carolina during the 2006–2007 school year; at the time of this chapter, ASC Centers have expanded into schools in three counties in rural western North Carolina. Daily operations and client referrals are overseen by an on-site licensed mental health professional, such as a licensed clinical social worker or a licensed master's-level psychologist. Mental health services are provided by graduate-level student trainees receiving their master's degrees in psychology, social work, or marriage and family therapy. Each student practitioner receives individual supervision from a Ph.D.-level professional in their respective disciplines, as well as on-site supervision from the licensed mental health professional at the school. Although some group therapy services are provided, the majority of students are seen via individual therapy. Students referred for services experience a range of symptoms, including depression, anxiety, trauma, and anger control difficulties. Mental health services provided are evidence based; CBT is the most frequently utilized treatment. ASC Center practitioners also collaborate with school faculty and administration, as well as community support organizations such as general practitioners and community mental health agencies to best support student mental health needs. The ASC Center utilizes treatment rooms housed within the school main office, and each practitioner protects students' confidentiality by calling them to "the office" for sessions.

The services provided through the ASC Center are very effective in reducing mental health symptoms in students; 63% of students who received services experienced symptom improvement or recovery and 78% experienced a decrease in overall psychological distress from pre- to posttreatment (Albright et al., 2013). Additionally, over half of the students who received services from the ASC Center experienced improvement in GPA between pre- and posttreatment/follow-up, and attendance rates of three-quarters of students receiving services remained stable or improved (Michael et al., 2013). These outcomes indicate that school mental health programs like the ASC Center are able to notably reduce mental health symptoms in youth by providing high-quality evidence-based services within the school.

Vignette: A Prototypical Treatment of Depression in a Rural School-Based Context

Erica is a 14-year-old high school freshman living in a rural area who was referred for mental health services after her English teacher reported concerns about content that suggested some suicidal ideation in one of Erica's writing assignments. A school counselor met with Erica and found that she was experiencing notable symptoms of depression with some mild suicidal ideation. Erica was referred for individual therapy through the school's mental health program, established through a partnership with a nearby university. Erica was paired with Bill, a graduate student clinician working at the school 2 days a week who had received training and some

experience in the evidence-based treatment of depression.

Bill's first meeting with Erica was relatively brief and focused on building rapport. Bill asked about Erica's history with mental health services; Erica reported receiving family therapy following a Social Services report related to domestic violence within the home. Erica did not find this therapy particularly helpful, as the information she disclosed was not kept confidential from her mother. Bill and Erica discussed the parameters of confidentiality within their work together and agreed that Bill would notify Erica if he disclosed information to her mother. Bill briefly discussed logistical elements related to therapy (e.g., session length and day of the week), and the two decided on a time of day during which sessions could be held. Erica was not able to attend sessions before or after school as she relied on the school bus for transportation, so she and Bill selected a part of the school day during which her grades would not suffer if she missed a bit of instructional time once a week. As Erica had expressed suicidal ideation previously, Bill assessed for risk of harm. Erica reported some suicidal ideation but no specific plan or access to means. She had no history of previous suicide attempts. The two made a safety plan, and Erica agreed to talk to her mother, Bill, or her school counselor if she had thoughts of suicide.

During the second session, Bill learned more about Erica's presenting problems. Erica described a low mood with mild suicidal ideation that had lasted for the past few months. Bill described additional symptoms of depression, and Erica reported that she also experienced a loss of interest in activities (noting that everything seemed boring), low energy, difficulty concentrating, a lack of appetite, and feelings of worthlessness. Erica also reported a sleeping pattern wherein she went to bed as soon as she returned home from school, often waking up well after dinner, and then stayed up very late watching television. This sleeping pattern impacted her ability to complete homework, and her grades were starting to suffer as a result. Erica had not considered these symptoms and behaviors to be linked with depression and was interested to learn that they were connected. Additionally, Bill learned a bit about Erica's family. Erica's parents separated several years ago. There was a history of domestic violence in the home, and Erica witnessed her biological father physically abuse her mother and older sister. Social Services had previously worked with the family but had no current involvement. Erica does not have any contact with her biological father, and expressed some anger surrounding his treatment of her mother. Erica lived with her mother, her mother's boyfriend, an older sister, and her sister's newborn child. The family home is small, and Erica shared a room with her sister and her new niece; this arrangement contributes to Erica's sleeping difficulties. Erica expressed resentment towards her niece and her mother's boyfriend for taking so much of her mother's time and attention. Historically, Erica's relationship with her mother was positive and Erica was able to confide in her; however, this relationship had deteriorated recently. Although her relationship with her mother was not as close as she wished, Erica reported being close to a couple of peers at school; however, she does not have many opportunities to spend time with these friends outside of school, as she lives far away from them and her transportation options are limited.

After consulting with his supervisor, Bill decided to use a cognitive-behavioral approach when working with Erica. He described this treatment to her and she appeared interested in this approach. Bill introduced the concept of mood monitoring and instructed Erica to rate her mood on a scale of 1–10 in the mornings, afternoons, and evenings. Bill asked Erica to describe several anchor points for her mood at different ratings, and wrote these down for her to reference if needed. Bill provided Erica with a monitoring chart, but Erica reported a preference of completing her mood monitoring on her phone, as she was concerned about losing the chart.

Erica brought her mood log back during the next session. She filled in her mood during most days, although she forgot to do so over the weekend. Bill praised her for her success, and validated that it can be difficult to remember assignments on the weekend, and the two

brainstormed how she might remember to report on her mood next weekend. Erica reported an overall low mood (approximately 3 out of 10) during the previous week, and Bill pointed out a pattern in which Erica's mood was the lowest in the mornings and the evenings, and comparably higher in the afternoons. Erica hypothesized that her mood tended to be particularly low in the mornings because she was tired and unhappy about getting up so early for school. She noted that her mood tended to be higher while at school because she was able to see her friends and participate in art class. As Erica's sleep schedule was erratic and likely affecting her mood, Bill decided to deviate from the typical progression of CBT to discuss sleep hygiene. Bill explained circadian rhythms (calling them "sleep rhythms") and the link between lack of sleep, difficulties concentrating, and negative mood. Bill explained the tenants of good sleep hygiene and Erica admitted that she did not practice many of these. However, when discussing barriers to sleep hygiene Erica noted that she enjoyed staying up late, as this was typically the only quiet time she had to herself in the family's small, hectic home. Additionally, Erica noted that it was difficult for her to only use her bed for sleeping, as this was the only place to sit in her room when doing homework. Bill utilized some motivational interviewing techniques to increase Erica's readiness to change some of her sleeping habits, and the two brainstormed possible solutions for some of the barriers Erica mentioned. The two also decided on a more appropriate bedtime to which Erica could adhere. Erica was instructed to continue monitoring her mood on her phone, and Bill pointed Erica towards a free smartphone application she could use to log her sleep.

During the next session, Erica reported some success with improving her sleep schedule. Although she did not go to bed at her decided bedtime every night and only refrained from napping 2 days out of the week, she noted an improvement in her mood after getting a full night's sleep the night before. Bill praised her for her success and the two brainstormed solutions for some of the barriers Erica experienced. Bill decided to begin working with Erica on behavioral activation. Bill discussed how depression can be linked with anhedonia and the link between engaging in pleasant activities and positive mood. When asked about the pleasant activities in which she currently engaged, Erica could not report many and agreed that she felt bored much of the time. Erica also reported many barriers to pleasant activities; her family lived far from the town and did not have many resources, and it was hard for Erica to get into town to see her friends or engage in an activity because the family shared one car. Bill gave Erica the assignment of tracking her daily activities, as well as brainstorming possible activities she might want to incorporate into her life.

In between sessions, Erica stopped by her school counselor's office, distressed over a fight she had with her mother. This fight exacerbated her symptoms of depression and brought about some mild suicidal ideation. Her school counselor discussed Erica's feelings and made a safety plan with her. The school counselor updated Bill once he returned to the school. When Bill checked in on Erica, she had calmed down considerably and denied current suicidal ideation. However, Erica's mother took away Erica's phone as a punishment for "talking back," so she did not have a copy of her therapy homework. She was able to recall her overall mood and sleep schedule, noting that her mood was particularly low after her fight with her mother. Erica described a sparse activity schedule, especially after her phone was taken away. She had not been able to brainstorm any additional activities in which she would like to engage. Bill provided Erica with a large list of potential pleasant activities, explaining that these activities did not require money or resources. Bill stressed the need to generate activities that could be accomplished if Erica did not have her phone. Erica chose several activities from the list in which she could easily engage in the upcoming week. Additionally, she chose one activity—learning how to crochet—that could serve as a longer term activity goal. Erica and Bill broke this goal down into several steps that Erica could accomplish over the next few weeks. Erica and Bill agreed on a time during which Erica could schedule pleasant activities; many were scheduled

after school as a deterrent from afternoon naps. Bill provided Erica with paper copies of monitoring sheets and gave her a folder in which she could keep future therapy homework.

During the course of treatment, Erica expressed a concern over peers asking her why she left class on a weekly basis. Bill learned that although Erica was called from class via a class phone the teacher answered privately, the teacher usually announced aloud that Erica was called to the main office, resulting in a conspicuous exit on Erica's part. Erica was not comfortable disclosing to other students that she was receiving therapy services, and Bill helped Erica brainstorm ways to respond to the students when they asked. To help protect Erica's confidentiality, Bill decided to hold their sessions during another class as much as possible.

Erica continued practicing behavioral activation over the next several sessions and experienced some success incorporating pleasant activities into her daily routine. She discovered that the most effective activities were listening to music, writing poetry, and sketching the landscape around the family home. She was able to notice an improvement in her mood while engaged in activities, but continued to experience dips in her mood related to fights with her mother and her mother's boyfriend. During this time, Bill began to focus on cognitive skills, discussing automatic thoughts and cognitive distortions. Erica noted that she tended to focus on the negatives in situations, and also engaged in cognitive distortions of mind reading and jumping to conclusions. Erica initially had some difficulty paying attention to the thoughts she had when experiencing an extreme emotion, and she and Bill worked on being more mindful of these thoughts over a few sessions. Bill provided Erica with thought records, and Erica was successful in completing these records. Over the course of the next few sessions, Bill and Erica worked on evaluating the evidence for thoughts in an effort to help Erica generate more realistic thoughts. Bill noticed a theme in Erica's thinking style that reflected an underlying belief that she was a worthless, stupid person, and that nobody liked her—many of Erica's cognitions tended to fall back on this automatic belief. Feeding this belief was the arrival of her niece, who took much of her sister's and her mother's attention. Both her mother and her sister worked, limiting their opportunities to spend quality time with Erica, which she interpreted as them not caring for her anymore. Bill worked with Erica to help build awareness of this belief and to help generate evidence against it. Erica was able to recognize that the belief was ultimately unrealistic and—with Bill's assistance—began to pay more attention to times in which her mother and sister demonstrated that they cared for her.

Although Erica was able to recognize that her belief that nobody cared for her was unrealistic, she tended to revert back to this belief after she and her mother had a fight or if she was not able to spend quality time with her mother for several days at a time. Erica also had a difficult relationship with her mother's boyfriend—she was reluctant to accept him as an authority figure and resented that he took up her mother's time, especially when he was present during activities that would otherwise be quality time between Erica and her mother. As these issues were more reflective of family dynamics than depressive thinking, Bill and his supervisor concluded that Erica might benefit from a few family therapy sessions. Bill presented this idea to Erica, and she consented to bringing her mother in for a meeting, although she did not want her mother's boyfriend present. Bill had some difficulty contacting Erica's mother to schedule this meeting; her work schedule was erratic, and she often was unavailable during school hours. When Bill finally made contact with Erica's mother, she stated that she would likely not be able to come to the school for a family meeting; she was not able to take any time off from work and—as the family shared one vehicle—would be unable to gain transportation to the school. Bill consulted with his supervisor and they decided on an acceptable alternative wherein Bill would teach Erica interpersonal and conflict resolution skills with the goal of improving communication with her mother while checking in with Erica's mother periodically by phone.

Over a few sessions, Bill taught Erica skills related to conflict resolution and effective communication, role-playing each skill in session. Erica also practiced calmly communicating with her mother about her wish to spend more one-on-one time with her and how this lack of quality time made her feel. Erica initially exhibited some negative thinking surrounding the effectiveness of the skills, expressing doubt that her mother would listen to her. Bill and Erica utilized cognitive restructuring skills to increase Erica's confidence in the conversation with her mother, and planned for some pleasant activities in which Erica could engage if the conversation did not result in the outcomes Erica desired. Bill asked Erica to schedule a time in which she and her mother could sit down to talk and be as uninterrupted as possible. Erica was able to have this conversation with her mother and reported that it went well; she felt like her mother listened to her and the two were able to schedule some quality time they could spend together. Additionally, Erica began using some communication and conflict resolution skills when interacting with her mother's boyfriend, which helped diffuse some fights that otherwise might have occurred.

Bill continued to work with Erica on skill building and cognitive restructuring over the next few sessions. Erica's mood continued to improve, especially after learning she could calmly communicate her feelings to her mother. This was reflected in Erica's mood monitoring charts as well as her verbal report. As such, Bill discussed the possibility of terminating treatment with Erica; Erica agreed that she no longer needed to meet with Bill on a weekly basis. Bill spent a session discussing relapse prevention and had Erica make note of the symptoms of depression that serve as "red flags" that her depression was starting to return. Erica stated that feeling bored all the time and sleeping more than usual were prominent "red flags" for her, and listed skills to use if these symptoms returned. As a way of celebrating the end of treatment, Bill had Erica recount the things she had learned during their work together and asked her to create some sort of tangible product that detailed these skills. Erica decided to create an illustrated book of these symptoms and skills. After treatment officially ended, Bill checked in with Erica briefly about once a month over the next few months to ensure that her mood continued to be relatively stable.

Discussion of Vignette

This vignette represents an exemplar of evidence-based treatment of depression within the context of school-based mental health, and incorporates some of the benefits and challenges of this model. Treatment within a school-based context is particularly appropriate for students like Erica whose parents have work schedules and transportation difficulties that would make it challenging for them to take a child to an outside mental health provider on a weekly basis. Here, Erica was able to receive excellent mental health treatment on a regular basis that was free of cost for her family.

Although Bill progressed through the core components of CBT, he did not shy away from modifying this treatment for Erica's specific needs. For example, upon learning of Erica's erratic sleep schedule that was likely contributing to her low mood, Bill elected to postpone behavioral activation to work on sleep hygiene. Additionally, Bill helped Erica learn communication and conflict resolution skills; while not a part of traditional CBT, these skills helped Erica manage the stressful relationships with her family. These modifications likely provided Erica with the most effective treatment for her individual difficulties.

One of the challenges that Bill faced as a mental health provider in a school setting is that he was not able to be at the school during the entirety of the week. Fortunately, he and Erica worked out a system wherein she could come to her school counselor in between sessions if needed. Maintaining good relationships with school staff and administration is imperative for school mental health practitioners, and these staff members can serve as supports for the student when a practitioner is not available. Another challenge to school-based mental health work is that of

protecting the student's confidentiality. While steps can be taken to protect confidentiality when calling a student from class for mental health treatment (e.g., calling them to "the office" instead of "the mental health center"), Bill may not have anticipated that other students would begin to ask Erica questions about routinely leaving class. Bill was able to be flexible (a beneficial quality for school-based practitioners) and alter the time in which they met to protect Erica's confidentiality.

Another challenge Bill faced that may be more unique to rural school-based mental health care was the difficulties related to scheduling a family session. It can be difficult to communicate and schedule a time to meet with parents as a school-based practitioner, as many parents work during the school day. Erica's mother also had limited resources and transportation difficulties that compounded these typical difficulties. When it became apparent that scheduling a session with Erica's mother would be nearly impossible, Bill again practiced flexibility and altered his treatment plan to address Erica's relationship with her mother in another effective manner. While the solution Bill chose was appropriate in this situation, it should be noted that in more severe situations, such as acute suicidal crisis, Bill should have pushed harder for Erica's mother to attend a meeting and helped her brainstorm ways to get transportation to the school.

Chapter Summary

This chapter described the school-based treatment of child and adolescent depression. Depression rates in rural areas may equal or exceed those of urban areas, and youth living in rural areas experience several barriers to receiving quality mental health care. Mental health services provided within the school are an excellent way of circumventing these barriers and providing youth with the mental health care they need. CBT has the most empirical support for reducing the symptoms of depression and improving functioning and can be easily implemented into a school mental health context by a number of providers. Practitioners should take care to modify the treatment as needed for each students' individual presenting problem, as well as concerns unique to working with youth in rural areas, such as the need to develop a strong therapeutic alliance and being mindful of the students' confidentiality. By following the guidelines set forth in this chapter, practitioners from a variety of backgrounds can successfully treat depression in children and adolescents in their school systems.

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Conduct Disorders and Substance Use Problems in Rural School Settings

12

Kristyn Zajac, Arthur R. Andrews III, and Ashli J. Sheidow

The overarching goal of this chapter is to use current knowledge of best practices in treatments for conduct and substance use problems to inform care in rural school settings. In the first section, we review the prevalence and correlates of conduct and substance use problems in the U.S. Although these problems are often equally common in rural school settings as they are in urban or suburban areas, statistics specific to rural areas are highlighted when available. Next, we review research on effective treatments for conduct and substance use problems. Though few of the existing evidence-based interventions have been developed specifically for rural school settings, it is likely that several of the treatments could be effectively delivered with creative problem solving to overcome barriers to implementation. Of note, there is overwhelming evidence that family involvement is a key component of effective interventions for these types of problems. Barriers and solutions to engaging families in school-based treatments as well as other potential difficulties with service delivery are discussed. Several advantages to school-based delivery of treatments for conduct and substance use are also reviewed. Finally, gaps in the current literature and future directions are specified.

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Prevalence and Correlates of Conduct and Substance Use Problems

Due to their disruptive nature, conduct disorders and substance use problems have direct relevance to the school setting, and school personnel are often the first to be aware of such problems among youth. For the purposes of the current discussion, conduct problems are defined broadly as disruptive behaviors consistent with diagnoses of oppositional defiant disorder and conduct disorder. These can range from relatively minor problems, including noncompliance and disruptive classroom behavior, to more severe problems, including law-breaking, delinquency, and aggression. We also focus here on a broad definition of substance use, rather than a diagnosis of a substance use disorder per se. This is due to the deleterious effects of problematic substance use during adolescence and its co-occurrence with other significant behavioral problems, even in the absence of a diagnosable substance use disorder. Due to the low rates of substance use problems and serious conduct problems in younger children, this chapter will focus solely on adolescents.

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Conduct and substance use problems are relatively common among U.S. adolescents. Notably, rural areas are similar to urban and suburban areas in the overall prevalence of conduct and substance use disorders as well as rates of adolescent substance use (Angold et al., 2002; Donnermeyer & Scheer, 2001; Levine & Coupey, 2003). In the National Survey on Drug Use and Health (NSDUH), a national longitudinal study, 9.5% of youth aged 12–17 reported use of an illicit drug in 2012, a rate that has remained relatively stable over the past decade (Substance Abuse and Mental Health Services Administration (SAMHSA), 2013). Marijuana use is the most common illicit drug used by this age group, with 7.2% reporting use in 2012 (SAMHSA, 2013). One concerning trend from these data is the recent decrease in youth's perceived risk of substance use, particularly for marijuana. For example, 54.6% of youth perceived smoking marijuana once or twice per week as a "great risk" in 2007, but only 43.6% responded this way in 2012. Though overall rates of adolescent substance use are similar in urban and rural areas, there are some differences in patterns of use. Specifically, there are higher rates of stimulant and methamphetamine use among rural youth and higher rates of Ecstasy use among urban and suburban youth (Gfroerer, Larson, & Colliver, 2007). Further, adolescents living in rural areas report higher rates of underage drinking and tobacco use and lower levels of perceived risk from alcohol use compared to their non-rural peers (Gfroerer et al., 2007; SAMHSA, 2004).

The 2012 NSDUH also assessed conduct problems, including delinquent behavior and fighting, showing somewhat lower rates compared to 2002 (SAMHSA, 2013). In 2012, 18.3% of adolescents reported having a serious fight at work or school, 11.8% took part in a group-against-group fight, 5.6% attacked another person with the intent to seriously harm them, 3.5% carried a handgun, and 2.7% sold drugs. Trends also show decreases in more serious conduct problems over the past decade. In 2010, 1.04 million juveniles were arrested, down 23.5% from 2001 (1.36 million arrested; U.S. Department of Justice, 2011). In terms of diagnoses in a large-scale study of adolescents, 12.6% met criteria for ODD, 6.8% for CD, and 11.4% for a substance use disorder in the National Comorbidity Survey (Merikangas, He, Burstein, et al., 2010a). Crime rates, particularly violent crime, tend to be lower in rural compared to urban or suburban areas (Berg & DeLisi, 2005). Although this means that rural school personnel are less likely to encounter violent crime among youth than their urban counterparts, it is also likely that fewer community resources are available for delinquent rural youth who engage in violent crime.

In addition to being relatively common during adolescence, behavioral and substance use problems often co-occur. For example, youth who reported engaging in serious fights were more than twice as likely to have used illicit drugs in the past month compared to youth who had not fought (SAMHSA, 2013). Similarly, youth who tried to steal something worth over $50 in the past year were over five times as likely to have used drugs compared to their peers. In terms of diagnostic overlap, between 25% and 50% of adolescents with substance use or a substance use disorder also meet criteria for conduct disorder (Armstrong & Costello, 2002).

There are notable trends in problem behaviors by gender, race, and age. Males constituted 72% of delinquency cases handled by juvenile courts in 2010. However, the proportion of females involved with the juvenile justice system has grown steadily over the past three decades, with female delinquency cases increasing at an annual rate of 2%, while male cases increased at a rate of less than 1% (Puzzanchera & Hockenberry, 2013). In terms of serious delinquent behaviors, African American adolescents were five times more likely than White adolescents to be arrested for a violent crime in 2008 (Puzzanchera, 2009), though it is unclear if these rates are due to higher rates of actual perpetration by African American teens or disproportionate arrest rates by the juvenile justice system. These racial differences are not present in rates of diagnosable behavioral disorders in community samples of adolescents (Angold et al., 2002; Merikangas, He, Burstein, et al., 2010a). Substance use disorders are slightly more prevalent in males than females, less prevalent among non-Hispanic Black compared to non-Hispanic White adolescents, and increase dramatically with age during adolescence (Merikangas, He, Burstein, et al., 2010a).

Both conduct and substance use problems are multi-determined, predicted by a variety of risk factors in individual, family, peer, school, and neighborhood domains (Loeber, Burke, & Pardini, 2009). Individual risk factors for conduct problems include impulsivity, risk taking, and negative emotionality (Sanson, Hemphill, & Smart, 2004). Family predictors include poor parenting, family stress, low socioeconomic status, parental psychopathology, and insecure attachment (Hoeve et al., 2009; Tobler & Komro, 2010). School risk factors include poor academic performance and low attachment to school (Henry, Knight, & Thornberry, 2011; Valois, MacDonald, Bretous, & Fischer, 2002). Associating with deviant peer groups and living in disadvantaged neighborhoods characterized by poverty also increase risk for conduct and substance use problems (Fergusson, Swain-Campbell, & Horwood, 2002; Stouthamer-Loeber, Loeber, Wei, Farrington, & Wikström, 2002). Further, the three community characteristics that are most highly predictive of crime rates and delinquency in urban settings (i.e., residential instability, ethnic diversity, and family disruption) have been found to be equally predictive in rural areas (Osgood & Chambers, 2003). Specific to rural settings, arrest rates for juvenile populations are the lowest in areas with the lowest population density, but proximity to metropolitan areas does not equate to higher juvenile crime rates (Osgood & Chambers, 2003).

Finally, conduct and substance use problems are highly relevant to school settings. These problems often come to the attention of school personnel, teachers, and counselors due to their association with poor school outcomes, including poor academic performance, low school engagement, and school dropout (e.g., Henry et al., 2011). These problems are also related to high rates of truancy and disruptive behaviors in classrooms, which can lead to suspension or expulsion. Because youth with conduct and substance use problems often struggle to meet the educational and behavioral expectations of the school setting, school personnel are in a unique position to assess and intervene on such behaviors. Further, successful management of conduct problems is directly relevant to ensuring educational success for students.

Review of Evidence-Based Treatments for Conduct and Substance Use Problems

Over the past few decades, there have been substantial advances in research on effective treatments for adolescent conduct and substance use problems, resulting in the identification of multiple evidence-based treatments (EBTs; see Eyberg, Nelson, & Boggs, 2009; Waldron & Turner, 2008 for reviews). There is substantial overlap in interventions for conduct and substance use problems, with some EBTs proven to be effective for both and others sharing similar components. In this review, only EBTs that have been determined to be well-established or probably efficacious based on criteria set by Chambless et al. (1998) and updated by Southam-Gerow and Prinstein (2014) will be highlighted.

Evidence-Based Treatments for Conduct Problems

Historically, conduct disorder and delinquent behaviors were viewed as intractable problems that were unresponsive to traditional treatment approaches. However, advances in the field's understanding of risk factors and the conceptualization of conduct problems as multi-determined and multisystemic in nature have led to the development of effective treatments, even for the most severe conduct problems. EBTs for conduct problems run the gamut from individual or group approaches to more intensive family-based approaches. Only one of these approaches (i.e., Group Assertiveness Training) was developed specifically for delivery in school settings. Further, the more intensive approaches are reserved for the most severe cases of conduct disorder and often require substantial training, oversight, and institutional commitment to implement. Despite these limitations in applicability to school settings, each EBT will be reviewed briefly, as knowledge of the full range of options will benefit school personnel. Discussion of the viability of implementing these programs in school settings versus partnering with other service systems that are better equipped to provide intensive treatments will follow.

Multisystemic Therapy

Multisystemic Therapy (MST) was developed for adolescents with serious antisocial and delinquent behaviors, including juvenile offenders (Henggeler, Schoenwald, Borduin, Rowland, & Cunningham, 2009). MST serves as an alternative to juvenile justice placement and is an intensive, family-based treatment with multiple sessions per week in youth's home, school, and other neighborhood settings. Treatment is delivered by MST teams, typically consisting of three to four Master's-level therapists and a doctoral level or advanced master's-level supervisor, with oversight from MST's purveyor organization. Each therapist carries a small caseload of four to six families at a time, allowing for multiple contacts per week with each family, engagement of key community stakeholders (e.g., teachers and school administrators, probation officers), and a relatively brief treatment duration (3–5 months). MST conceptualizes youth as nested within multiple systems (e.g., family, peer, school, neighborhood) that influence their behaviors. MST therapists work with families to specify and target individual, family, peer, and environmental factors that are promoting behavior problems. Interventions include behavioral, cognitive-behavioral, and structural family techniques, among others, and are selected based on an individualized conceptualization of each youth. As each intervention is implemented, improvement in the target behavior is carefully monitored and, when successful resolution is not achieved, reasons for failure are examined and utilized to inform new interventions. MST is one of the most widely studied treatments for conduct problems, with 20 published outcome studies, including several rigorously designed randomized controlled trials demonstrating positive outcomes for family relationships, re-arrests and incarceration (short-term and into adulthood), and psychiatric symptoms (e.g., Henggeler et al., 1986; Schaeffer & Borduin, 2005).

Multidimensional Treatment Foster Care

Similar to MST, Multidimensional Treatment Foster Care (MTFC) was developed for youth with severe conduct problems as an alternative to placement in residential or detention settings. MTFC requires a team of providers for each family. Experienced foster parents are provided with training and support in implementing a daily behavioral plan focused on rewarding positive behaviors and removal of privileges for negative behaviors. Youth have individual placements in foster homes lasting 6–9 months. Youth also receive weekly individual therapy focused on skill building (e.g., problem solving, anger management, educational/vocational), weekly or twice weekly meetings with a behavioral support specialist to increase prosocial behaviors (e.g., getting a part-time job, participating in sports and activities), and regular appointments with a psychiatrist. At the same time, a family therapist works with the biological parents or alternative aftercare placement to prepare them for continued behavior management upon reunification. Successful treatment depends on a well-specified individualized behavioral plan that is implemented across settings (e.g., foster home, aftercare placement, schools). A multitude of studies show positive findings for MTFC, including reductions in criminal charges and behaviors and days spent incarcerated (e.g., Chamberlain, Leve, & DeGarmo, 2007) and, for females, reduced pregnancies (Kerr, Leve, & Chamberlain, 2009). Further, these effects have been shown to be sustained 2 years following placement (Eddy, Whaley, & Chamberlain, 2004; Kerr et al., 2009).

Individual Cognitive-Behavioral Therapy

Cognitive-Behavioral Therapy (CBT) is based on the conceptualization that the way an individual thinks about situations influences their affective and behavioral responses. CBT for conduct problems targets deficits in coping, problem solving, and social skills, while teaching adaptive responses to situations that typically lead to behavioral problems. For example, a CBT therapist might aid a youth in revising perceptions of ambiguous social situations that were previously viewed as hostile by the youth in order to promote positive behavior and discourage aggression. A meta-analysis of intervention studies concluded that CBT is moderately effective for adolescent antisocial behaviors (Bennett & Gibbons, 2000).

The authors caution that CBT appears to work better when ecological factors, such as parenting, are also targeted and recommend that CBT be used as part of a multimodal treatment approach.

Group Assertiveness Training

Two versions of a school-based group assertiveness training intervention have been found to be effective for youth with disruptive behaviors (Huey & Rank, 1984). Both use the same content and format, but one is led by a counselor while the other is led by a peer. In both cases, group leaders receive training, and group meetings are highly structured. Groups consist of six adolescents, meet twice weekly for 4 weeks, and focus on topics such as anger and rules. Group Assertiveness Training has been found to decrease classroom aggression and increase assertiveness skills among students with disruptive classroom behavior, regardless of the type of group leader (Huey & Rank, 1984). Further, given its brevity and low use of resources relative to other approaches, Group Assertiveness Training is a promising approach for rural school settings. However, unlike MTFC, MST, and CBT, this approach has been evaluated in only one well-designed study with a relatively small sample of eighth- and ninth-grade African American students from an urban school. Thus, additional research on Group Assertiveness Training, particularly with a wider array of settings and study participants, would impart greater confidence in the use of this approach with rural youth.

Problem-Solving Skills Training

Problem-Solving Skills Training (PSST) is a behavioral approach focused on developing problem-solving skills through therapist modeling, role plays, corrective feedback, and the use of reinforcements. Treatment lasts 20–25 sessions, and parents are occasionally involved in treatment. PSST has been evaluated in both inpatient and outpatient treatment settings, but not specifically in schools. Three versions of PSST are considered evidence-based: the initial PSST described here, a version of PSST that includes in vivo practice exercises conducted outside of session (PSST+Practice), and a version that includes 13–16 concurrent sessions of intensive parent management training (PSST+Parent Management). All three have been found to decrease disruptive behaviors (e.g., Kazdin, Bass, Siegel, & Thomas, 1989; Kazdin, Siegel, & Bass, 1992). PSST may be less relevant for adolescents, as its evidence base is for ages 7–13. Nonetheless, PSST can be delivered with cases at lower risk (i.e., disruptive but not delinquent) and as an individual treatment with or without parental involvement, making it a more feasible option for school settings than some other EBTs.

Evidence-Based Treatments for Adolescent Substance Use

Similar to approaches for conduct disorder, EBTs for adolescent substance use are often family-based and have not been developed specifically for school settings. Recent reviews and meta-analyses have concluded that family-based approaches have the strongest evidence for their effectiveness (Tanner-Smith, Wilson, & Lipsey, 2013; Waldron & Turner, 2008), though other approaches have either been shown to be effective (e.g., Group CBT) or are still currently being evaluated (e.g., individual CBT). As reviewed below, some models of family-based treatments are better suited for implementation in school settings, whereas there are substantial barriers (e.g., need for a treatment team) that would make delivery of other programs more difficult.

Multidimensional Family Therapy

Multidimensional Family Therapy (MDFT) is a manualized intervention that incorporates family and individual therapy, while engaging the multiple systems in which the adolescent is involved. MDFT targets four domains: the individual, the parents, the family environment, and the extrafamilial systems that influence the adolescent (e.g., schools, communities, justice system). Treatment sessions are held one to three times per week over 3–6 months. MDFT's effectiveness is supported by over 25 years of research. For example, MDFT has been shown to be superior to individual cognitive-behavioral therapy and a peer

group treatment in decreasing substance use (Liddle, Rowe, Dakof, Henderson, & Greenbaum, 2009; Liddle, Dakof, Turner, Henderson, & Greenbaum, 2008). Though MDFT is delivered by a single therapist and does not require a team, the developers recommend that at least two Master's-level therapists be trained at any site delivering MDFT and that therapists have the capacity to see families both in the home and clinic.

Functional Family Therapy

Functional Family Therapy (FFT) integrates systemic and cognitive-behavioral strategies over three phases of treatment: Engagement and Motivation; Behavior Change; and Generalization. In the first phase, the therapist takes a non-confrontational approach and uses reframing of the adolescent's behavior problem to engender hope in family members and engage them in treatment. The second phase draws from a variety of EBTs (e.g., behavioral, cognitive-behavioral) to help the family change dysfunctional relational patterns and subsequently decrease adolescent problem behaviors. Finally, in the third phase, the therapist aids the family in generalizing treatment gains across settings, frequently through interacting with other professionals (e.g., schools, juvenile justice). Although delivered by a single therapist, agencies typically have a group of trained FFT therapists and must participate in a three-phase training process prior to delivery. The purpose of this process is to ensure high-treatment fidelity through intensive training of supervisors and therapists and ongoing consultation with FFT's purveyor organization. Substantial research supports FFT's efficacy in reducing marijuana, alcohol, and other drug use (e.g., Waldron, Slesnick, Turner, Brody, & Peterson, 2001).

Group Cognitive-Behavioral Therapy (CBT)

Group CBT adapts the CBT principles described above for delivery in group settings. Most versions are manualized and specify a treatment lasting 12 or more weekly sessions. Group sessions are highly structured and focus on helping adolescents identify and manage situations in which they are at risk for substance use. Topics include refusal skills and relapse prevention using techniques such as role plays, modeling, and didactics. Group CBT has been shown to produce significant decreases in substance use (e.g., Kaminer, Burleson, & Goldberger, 2002). Further, despite concerns that group-based treatments for delinquent adolescents may have negative effects due to the potential for "deviancy training" among participants (Dishion, McCord, & Poulin, 1999), there has been no empirical evidence of a negative influence on adolescents participating in group CBT for substance use when groups are highly monitored and structured (Burleson & Kaminer, 2005).

Brief Strategic Family Therapy

Brief Strategic Family Therapy (BSFT) aims to prevent or treat adolescent substance use and other behavior problems, increase prosocial behaviors, and improve family functioning. BSFT is delivered over 12–16 family sessions either in a clinic or a place convenient to the family, such as their home. BSFT conceptualizes behavioral problems as products of maladaptive family interactions and aims to decrease such problems by improving family functioning. BSFT consists of three intervention approaches: joining with each family member and the family system, diagnosing interactional patterns that lead to problem behaviors, and restructuring family interactions through reframing, coaching, and assigning tasks. The BSFT manual is widely available; however, the developers emphasize the importance of therapist training and supervision to achieve a high level of treatment fidelity (Szapocznik, Hervis, & Schwartz, 2003). The research evidence for BSFT suggests that it is effective in reducing substance use problems (e.g., Santisteban et al., 2003), but effects have not been as consistent and robust as other evidence-based family approaches (Robbins et al., 2011).

Family Behavior Therapy

Family Behavior Therapy (FBT) is a 15-session manualized treatment based on behavioral principles and strategies. Behavioral strategies include behavior contracts, stimulus control, urge control, and communication training, each of which is modeled by the therapist, rehearsed by the

adolescent and/or family, and monitored between sessions. Behavioral contracting establishes clear rules about the adolescent's behaviors, rewards for compliance, and removal of rewards for noncompliance. This step also teaches parents how to monitor their child's behavior and implement effective rewards and consequences. Stimulus control helps adolescents to decrease their exposure to situations in which they are likely to use drugs or alcohol, and urge control aims to decrease desires to use substances through thought stopping and replacement. Finally, communication skills training targets maladaptive family communication patterns through therapist modeling as well as family practice of positive communication and strategies to cope with anger. Studies of FBT have supported its effectiveness in decreasing substance use and improving school performance and psychiatric symptoms (e.g., Azrin et al., 2001). FBT can be delivered by individual therapists. It is recommended that therapists received formal FBT training and ongoing telephone-based training sessions for the first few months of implementation to facilitate high treatment fidelity.

Multisystemic Therapy

MST (described above) has also been found to be effective for treating substance use problems. Studies have found that MST reduces adolescent marijuana use with sustained reductions 4 years post-treatment (Henggeler, Clingempeel, Borduin, & Pickrel, 2002; Henggeler, Pickrel, & Brondino, 1999).

Common Features of Treatments for Conduct and Substance Use Problems

There is a relatively wide selection of EBTs for adolescent conduct and substance use problems, which is a testament to the substantial research attention given to these approaches over the past few decades. Despite this variety, there are a few core features common to all or most of these approaches. First, they all involve behavioral or cognitive-behavioral interventions, and most include both. Second, they are all highly structured and time-limited. Third, most of them require highly trained therapists and emphasize the importance of treatment fidelity, usually through ongoing supervision and expert consultation. Fourth, most require some family involvement. There are some notable exceptions (e.g., Group CBT for substance use, Individual CBT for conduct problems), but comparison studies have found greater efficacy for family-based treatments at least in the case of substance use (Tanner-Smith et al., 2013). Many of these approaches also intervene on multiple systems (e.g., home, school, neighborhoods) to address the multiple risk factors that often account for adolescent problem behavior, which is informed by research on the ecological determinants of behavior problems in youth (e.g., Loeber et al., 2009). Notably, a significant number require a team-based approach, ongoing specialized supervision, and substantial organizational support. These approaches include MDFT, MST, and FFT and are unlikely to be implemented successfully in school settings. However, school personnel are in an ideal position to advocate for these treatments as well as link at-risk youth with these programs in their communities. Importantly, school personnel are uniquely equipped to serve as important collaborators with community-based treatment teams in implementing EBTs.

Prevention Programs

Although a comprehensive review of the literature on prevention programs for conduct and substance use problems is beyond the scope of this chapter, it should be noted that a substantial amount of research has been devoted to developing and evaluating such programs. Further, many of the primary and secondary prevention efforts have been specifically evaluated in school settings. More detailed information can be found in the following resources for prevention programs focused on substance use (Cuijpers, 2002; Faggiano et al., 2008; Gottfredson & Wilson, 2003; Tobler et al., 2000) and conduct problems (Greenwood, 2008; Park-Higgerson, Perumean-Chaney, Bartolucci, Grimley, & Singh, 2008; Webster-Stratton & Taylor, 2001; Wilson & Lipsey, 2007).

Implementation Issues Specific to Rural Settings

Several studies have highlighted the failures in meeting treatment needs of rural youth (e.g., Anderson & Gittler, 2005; Mohatt, Adams, Bradley, & Morris, 2005). As described above, very few EBTs for conduct and substance use problems have been developed and tested specifically in rural areas. A limited number have been conducted with samples of rural youth, such as the first trials of MST (Borduin et al., 1995; Henggeler, Melton, Brondino, Scherer, & Hanley, 1997). Some of the EBTs have been delivered in rural communities as part of larger research studies (e.g., Dennis et al., 2004; Glisson et al., 2010; Robbins et al., 2011), but the results of those studies have been less definitive than other studies of these EBTs. In addition, rurality has not been evaluated as a specific variable in these trials. In clinical practice, however, the EBTs reviewed here have been delivered in rural settings. At the very least, then, one can hypothesize that so long as the EBT can be delivered with high fidelity, similar outcomes across rural and urban settings can be expected.

The ability to implement EBTs with high levels of fidelity may be compromised in rural settings, however. While this does not mean that EBTs should be avoided, it highlights the need to proceed with caution and thoughtfulness in rural settings. Barriers to mental health treatment implementation in rural settings have been summarized by various sources that inform the domains discussed below (e.g., Boydell, Stasiulis, Barwick, Greenberg, & Pong, 2008; Glisson & Schoenwald, 2005; U. S. Department of Health and Human Services, 2011).

A primary domain of implementation barriers in rural settings is transportation. For example, public transportation for families to get to treatment facilities is often not available. Even if families or communities have transportation, the long distances families must often travel present a barrier. This barrier can be overcome by home-based treatment approaches. However, this solution produces a greater financial burden to programs for travel costs, and the time that therapists spend traveling equates to less time available for direct delivery of clinical services. Barriers in flexibility also exist, for example, when a rural family is not available (i.e., "no-shows"). In urban areas, the therapist can more quickly travel to another family's home or to their clinical site to proceed with work. Thus, workload expectations must be lowered for therapists delivering home-based services in rural areas, adding to the cost of services.

Rural communities may also lack resources relevant to adolescent treatments. In particular, many EBTs for adolescent conduct problems rely upon increasing the youth's exposure to prosocial activities, which can include extracurricular activities, mentored experiences, and part-time employment. Rural communities often lack many of these opportunities and, when opportunities are available, transportation barriers are often an issue.

Infrastructure barriers to implementation include the poor connectivity between systems frequently observed in rural communities, as well as the low availability of some services. Rural communities also frequently lack healthcare facilities, crisis response, and the availability of higher or lower levels of care for transitioning youth. For instance, the closest inpatient treatment facility may be hours away. Thus, the full continuum of care is compromised.

Workforce issues also present barriers for implementing EBTs in rural settings. There are few professionals in rural areas trained in EBTs, and advanced training and continuing education opportunities are lacking. Further, informal and formal professional networks often become the means for dissemination of useful information, strategies, and resources for providers. With rural communities having fewer providers and sometimes no providers in the same field, providers can become isolated and not privy to the latest tools.

Although cost barriers are present for all communities, they may be particularly difficult for rural communities. The population density in rural settings means that the subpopulation available for specialized programs is very small. Thus, supporting a highly specialized treatment program or practitioner to focus on a

single subpopulation may be impossible, as the subpopulation may not be large enough to fill caseloads. In particular, team-based EBTs (e.g., MST, MTFC) may be impractical without creative planning such as multiple towns or counties banding together to support such services. Relative to more populated areas, the cost effectiveness of programs in rural settings is lower due to these utilization issues.

Even if the aforementioned barriers are overcome, stigma related to mental health problems and treatment may prevent family engagement. Although not limited to rural settings, mistrust of service providers may be stronger in rural settings than in urban settings. In a smaller community, there is also a greater risk of providers having role conflicts and confidentiality issues with families who need services. Training organizations for ESTs generally have more experience with technical assistance for urban areas as well, so rural providers may not have as much support in addressing and overcoming the impact of these barriers.

Thus, careful planning and decision-making is needed to ensure adequate implementation of EBTs in rural settings. There are concerted efforts to address some of these barriers. For example, the National Health Service Corps provides scholarships and student loan repayment for certain providers to practice in some rural areas. Likewise, some Medicaid programs offer enhanced rates in rural areas (Mohatt et al., 2005). However, additional resources are clearly needed to improve access to EBTs for conduct and substance use problems in rural settings.

Application of Research on EBTs in Rural School Settings

Although few programs for conduct or substance use problems have been studied in rural schools, some of the EBTs lend themselves well to this setting. For example, individual CBT for conduct problems and group-based CBT for substance use problems could likely be implemented with high fidelity. Similarly, some of the family therapies could be used in school settings. Effective family approaches, however, may be limited to those that do not require a team-based approach, as schools usually do not have access to the resources needed to implement such programs. Specifically, MDFT, FBT, and BSFT may be readily implemented in rural school settings, whereas MST, MTFC, and FFT would be more difficult. The advantages and disadvantages of implementing these EBTs in rural schools settings are discussed below.

Advantages of School-Based Treatments for Conduct and Substance Use Problems

In addition to barriers faced by all rural adolescents seeking mental health treatment reviewed above, adolescents with conduct and substance use disorders may face even greater barriers to treatment. Specifically, the majority of youth with conduct problems across geographical settings do not receive treatment, and they are less likely to receive services when compared to youth diagnosed with other mental health problems (Merikangas, He, Brody, et al., 2010b; Merikangas et al., 2011). Similarly, only 10% of adolescents who require specialized substance use disorder treatment receive it (SAMHSA, 2013). Myriad factors may account for the disparities in service utilization for conduct and substance use disorders. For example, many factors associated with lower service utilization, such as parental psychopathology or substance abuse, poverty, and lack of parental engagement, are also risk factors for both conduct and substance use problems (Cornelius, Pringle, Jernigan, Kirisci, & Clark, 2001; Merikangas et al., 2011). In other words, adolescents diagnosed with substance use and conduct disorders may be at particular risk for many of the barriers likely to impede service access.

As a result of disparities in service utilization, reducing barriers and increasing access to services is of particular importance for effective treatment of conduct disorder and substance use problems. Implementation of EBTs in school settings may represent an effective strategy for improving access to treatment. Similar to services

for other disorders, school-based services reduce many of the poverty-associated barriers (e.g., lack of transportation) to services for conduct and substance use disorders. While school-based services cannot necessarily eliminate some of the more salient barriers for conduct and substance abuse disorders (e.g., lack of parent engagement), the delivery model may diminish the impact of many of these variables. For example, although parental engagement is highly desirable for most EBTs for conduct and substance use problems, the EBTs that do not require parents to participate in treatment serve as viable alternatives when parents are unable or unwilling to attend sessions. Delivery of such EBTs in school settings allows providers to work with youth without their parents being engaged in transporting them to sessions.

There are also other advantages related to client access. Specifically, conduct and substance use problems often present themselves in the school setting (e.g., fighting and aggressive behavior at school; use or possession of drugs on school campus). Thus, school-based clinicians are in an ideal position to assess these problematic behaviors directly. For example, clinicians are better equipped to conduct functional analyses that are used as part of many of the EBTs to identify triggers for a youth's problem behaviors. In fact, educators routinely implement functional analyses for behavior problems outside the confines of EBTs (see Crone & Horner, 2003 and Steege & Watson, 2009 for practical examples of functional analyses in schools).

Direct collaboration with school personnel also allows clinicians to develop specific goals, ensure that behavior plans utilized in many EBTs are implemented consistently across settings, and aid school personnel in modifying plans based on observed effectiveness in reducing problematic behaviors. For example, clinicians in school settings can more easily coordinate with teachers, coaches, and school administrators to assure that behavior plans are maximally implemented in each setting (e.g., classroom, after school activities). Again, educators have been creatively implementing behavior plans and token economies in the school context (see Cihak & Bowlin, 2010 and Colvin, 2009 for guides to these strategies).

School-based clinicians can also provide other school personnel with the type of hands-on training that is often not feasible in office-based settings. Collaborating to improve assessment (e.g., through school-based screenings) is particularly important, as lower-level behavioral problems often go undetected in school settings, with only the most severe cases being referred to services (Bradshaw, Buckley, & Ialongo, 2008). Early detection and prevention is advantageous given the high level of care often required when behavioral problems become severe. With regard to intervention, school consultation models in which mental health professionals provide training and support to school personnel are effective in reducing disruptive behavior and increasing classroom compliance (see Erchul & Martens, 2010 for a review).

Limitations of School-Based Interventions for Conduct Disorder and Substance Abuse

Unfortunately, rural school settings can also pose significant barriers, making implementation of some EBTs challenging. As described previously, many EBTs require a full team of professionals (e.g., MST, MDFT, FFT), which is not feasible in the vast majority of school settings. For example, MST requires that clinicians be available "24/7" to provide families with whatever support necessary. MST and similar treatment approaches may require too many adaptations to suit school-based settings. Instead, other approaches that do not require such time- and personnel-intensive services (e.g., individual CBT, BSFT) are more appropriate. In addition, school personnel should identify EBTs for conduct and substance use problems provided by community partners to ensure successful linkage of youth who cannot be successfully treated in the school setting to more intensive interventions. When no such services exist, schools may be in the position to advocate for the increased availability of EBTs for youth in their community.

Many of the EBTs for conduct and substance use problems are family-based and require significant caregiver involvement for successful implementation. As a result, special attention must be afforded to caregiver engagement. Strategies for engaging parents in school-based mental health treatments have been specified (see Chap. 20 of this volume for specific suggestions and programs). As noted above, there are EBTs for conduct and substance use problems that do not require parental involvement; however, parental involvement is often critical for sustained improvement, particularly in the case of more severe behavioral problems.

Finally, school disciplinary actions can interfere with treatment of conduct disorder and substance abuse. Current policies in many schools are at odds with effective treatment (e.g., expulsion for minor substance use possession and conduct-related offenses). In rural settings with few alternative school placements, these sanctions can lead to complete disengagement from the educational system for such youth, a risk factor for poor long-term outcomes (e.g., continued substance use, worse conduct problems, arrest and legal involvement; Henry et al., 2011). On the other hand, formal involvement with law enforcement and the court system may be the only viable avenue for youth to access more intensive services in rural communities. Though such policies may not be readily amended, clinicians should work with school administrators to minimize the impact of school disciplinary action, while balancing the safety and educational goals of school settings. Whenever possible, collaborative efforts should be made to develop alternative discipline plans that align with treatment goals.

Limitations of the Existing Literature and Future Directions

Unfortunately, few of the EBTs for conduct and substance use problems have been specifically studied in rural settings. As reviewed above, some aspects of rural settings are likely to impact the efficacy of these treatments. Thus, more research is needed both to determine the efficacy of these treatments in rural settings and to explore potential modifications to optimize their effectiveness. Another limitation is the lack of EBTs for conduct and substance use problems developed specifically for school settings, with the exception of Group Assertiveness Training. It is likely that the approaches developed for delivery with individual youth or in group settings could be readily used in school settings. However, some research suggests that family-based treatments are more effective than individual or group-based treatment approaches for conduct problems (Waldron & Turner, 2008). Thus, additional research on best practices for involving families in school-based treatments for conduct problems is warranted.

Schools have some clear advantages over clinic-based services for the assessment and treatment of conduct and substance use problems. These include improved access to care, the capacity to assess and treat large numbers of youth, observation of youth in an important social context and among peers, and the capacity for regular contact with youth to ensure treatment engagement. Thus, delivery of treatment in school settings overcomes many barriers common to outpatient mental health treatment facilities, including low motivation among parents to bring youth to treatment, lack of transportation to the clinic, and cancelled or missed appointments. At the same time, school-based providers face their own challenges, including difficulties with engaging parents and other family members in treatment, scheduling sessions at times that working family members can attend, and addressing school sanctions often experienced by youth with conduct problems (e.g., suspensions/expulsions from school). Therefore, the development of treatments specifically for school settings will advance the field in important ways.

One emerging model that has been developed specifically for school settings is a brief intervention for adolescents with mild to moderate substance use problems (Winters, Fahnhorst, Botzet, Lee, & Lalone, 2012). This approach was developed to improve access to substance abuse treatment services through delivery in the schools.

The rationale for the brief approach (i.e., four sessions) was to provide a standalone treatment for youth with the mildest problems, while serving as a gateway to more intensive community-based treatments for youth with more serious substance use problems. The intervention showed promising effects on substance use outcomes as well as engagement in subsequent substance use services (Winters et al., 2012). Notably, effectiveness increased substantially when even a single parenting session was provided. Though more research is needed on this specific intervention, this approach to treatment development can serve as an example of how to tailor treatments for the school setting. For example, many school-based treatment providers may be in the position to manage mild to moderate conduct or substance use problems, but find it challenging to provide the level of care needed for more severe problems. An approach to triaging cases and increasing the effectiveness of linking youth with more serious problems to community resources is likely to be attractive to both providers and school administrators. Further, these types of approaches allow a large number of youth with mild symptoms to access services that they would be unlikely to receive in the community. Additional treatment approaches for conduct and substance use problems designed with both the strengths and limitations of school-based treatment in mind are sorely needed.

Conclusion

School-based mental health services have the capacity to overcome many of the barriers to EBTs for conduct and substance use problems in rural settings. Though few of the existing EBTs have been developed specifically for school settings or evaluated in rural settings, it is likely that several of these treatments could be effectively delivered in rural school settings. These include the EBTs delivered as either individual or group-based therapies (i.e., CBT, Problem-Solving Skills Training; Group Assertiveness Training) as well as the family-based treatments that do not require an intensive team-based approach (e.g., BSFT, FBT, MDFT). Adoption of these treatments can be accomplished through specialized training of school-based mental health providers and, whenever possible, ongoing support from treatment developers or expert supervisors to ensure high treatment fidelity. Though additional research on these EBTs in rural school settings would be helpful in determining their efficacy and specifying any necessary modifications, these treatments represent the field's current knowledge about best practices for conduct and substance use problems.

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What Lies Beneath: Pediatric Bipolar Disorder in the Context of the Rural School

13

Rafaella Sale, Alex Kirk, and Eric A. Youngstrom

Sarah's teachers have begun to notice unusual behavior in Sarah early in her sophomore year of high school. These "changes of personality" seem to occur spontaneously. Instead of talking only when called on, she speaks up and interrupts her teachers, even after losing points for doing so. Sarah also appears to be unable to stay seated. Teachers have come to expect disruptive behavior in other students, but it is out of the ordinary for Sarah, who is normally a shy introvert. Laughing loudly 1 min, she becomes irritable the next minute and lashes out in frustration when requested to quiet down or leave the classroom. All of her teachers complain that Sarah talks incessantly, jumps from topic to topic, and cannot seem to stay on the subject at hand. Some students remark that she has begun skipping classes. When she's in one of her "moods," she fails exams or quizzes and neglects to turn in homework. Just when her parents are notified of Sarah's behavior, she shows up to school acting just like her old self. However, now she seems down and apathetic towards class activities, even in science, her favorite subject.

Bipolar disorder among children and adolescents lacks the acknowledgment by school personnel that more commonly diagnosed disorders receive (Angst, 2006). Within the classroom, the manic symptoms of bipolar disorder will most likely present as irritability, frustration, and aggression, with grandiosity and elation (Craney & Geller, 2003; Kowatch, Youngstrom, Danielyan, & Findling, 2005). The disruptive behaviors of this disorder include excessive speech, inappropriate behavior, and aggressive outbursts and are more noticeable to educators than the depressive symptoms of the mood disorder. These symptoms often go undetected, but are equally detrimental to grades and overall functioning (Hammen & Rudolph, 2003). To educators, the labile behavior of this profile is more likely to be classified as a discipline issue, not a psychological one, further obstructing appropriate referral for assessment and care while the disorder progresses.

What is Bipolar Disorder?

Bipolar disorder is a serious and debilitating disease that often runs a recurrent lifetime course. The risk of suicide is 15 times higher for

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individuals diagnosed with bipolar disorder than for those without the diagnosis (American Psychiatric Association (APA), 2013). In fact, the diagnosis may account for 25% of all completed suicides (APA, 2013). Bipolar disorder observed in children and adolescents has been termed pediatric bipolar disorder (PBD) within the literature. PBD is different from the regular ups and downs seen in children or the mercurial angst witnessed in teenagers. Children and adolescents with PBD report significantly more functional impairment in all aspects of daily living compared to other youths that seek out pediatric services (Freeman et al., 2009), and they often exhibit disruptive behavior and other disorders within and outside of the school environment (Lewinsohn, Klein, & Seeley, 1995). Two thirds of adults with bipolar disorder begin to show signs during adolescence, and one third of youth with serious mood problems follow a bipolar course into adulthood (Angst, 2006). Therefore, early detection could protect against the risks of bipolar disorder: high school dropout, lower socioeconomic status, unemployment, repeated hospitalizations, overutilization of medical resources, suicide attempts, and death by suicide (APA, 2013; Miklowitz & Chang, 2008).

The newest edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-5) recognizes four major types of bipolar disorder: bipolar I, bipolar II, cyclothymia, and other specific bipolar and related disorders (APA, 2013). These diagnoses require substantial evidence of impairments across areas of functioning, including home, work, or school environments. Recently, bipolar disorder has been conceptualized as a spectrum disorder, acknowledging that many individuals, including adolescents, experience difficulty and negative consequences (e.g., school suspensions) from subthreshold symptoms of mania and depression (Angst et al., 2003; Lewinsohn et al., 1995). The newest edition of the *DSM-5* accounts for more of the subthreshold cases of mixed episodes with a diagnostic umbrella of "Other Specified Bipolar and Related Disorders" (OS-BRD), adding "brief cyclothymic disorder" to the other prototypes of bipolar "Not Otherwise Specified" (NOS) from the *DSM-IV* (APA, 2013).

Bipolar I disorder has been conceptualized as the classic presentation of bipolar, requiring only a full episode of mania, i.e., manic symptoms present much of the day, most days, for a week, or symptoms so severe the individual requires psychiatric hospitalization (APA, 2013). However, bipolar I presents in a variable fashion. An individual with bipolar I may experience mania only once in a lifetime or several times and may exhibit depressive episodes frequently or not at all (Youngstrom & Algorta, 2014). In contrast, the diagnosis of bipolar II disorder requires both a full major depressive episode and a hypomanic episode, i.e., milder manic symptoms lasting at least 4 days. Contrary to popular belief, the risk for suicide is equal between types I and II partly because of the dysfunction and impairment associated with the depression in type II (Merikangas & Lamers, 2012; Novick, Swartz, & Frank, 2010). The severity in problems that result from either mania or hypomania has not been found to differ significantly either; therefore, a child experiencing any bipolar type across the range of the spectrum should be treated with equal caution and immediacy of care (Merikangas & Lamers, 2012).

Cyclothymic disorder is defined by a mixture of hypomanic and depressive symptoms lasting for a period of 2 or more years (1 year for people 18 years or younger; APA, 2013). Although the mood symptoms may cause impairment, they do not develop fully into a major depressive episode or mania, and the individual does not experience a period of 2 months or more without mood symptoms during the defining mood episode (APA, 2013). Careful monitoring of these subthreshold symptoms is imperative, and the lack of unbiased documentation often causes this disorder type hard to identify diagnostically. Nonetheless, cyclothymic disorder has been found to cause substantial impairment (Van Meter, Youngstrom, Demeter, & Findling, 2012; Van Meter, Youngstrom, & Findling, 2012; Van Meter, Youngstrom, Youngstrom, Feeny, & Findling, 2011). Lastly, the OS-BRD subtype is the category for residual cases that do not meet the diagnostic criteria of the first three subtypes of bipolar. Often these are cases that could be cat-

egorized as bipolar II, but lack one symptom or duration criteria (e.g., hypomania without depressive symptoms *or* hypomanic symptoms for 2 days instead of four), so therefore fall into OS-BRD (Youngstrom & Algorta, 2014). A diagnosis of OS-BRD requires significant impairment in at least one setting (APA, 2013).

Within community samples, the lifetime prevalence of any bipolar disorder, or PBD, among adolescents is approximately 1–2.4% (Kozloff et al., 2010; Lewinsohn et al., 1995; Van Meter, Moreira, & Youngstrom, 2011). Approximately 5.6% of adolescents report some symptoms of significantly elevated or irritable and expansive moods lasting for isolated periods of time that do not meet full criteria for a bipolar diagnosis (Lewinsohn et al., 1995). For the presence of the full bipolar II subtype in adolescents, the lifetime prevalence rate has been found to be greater (3–4%; Merikangas & Lamers, 2012).

Who Should be Assessed for PBD in the School?

Before making a decision on how to treat or contain PBD in the school, a student must be assessed thoroughly in order to clarify the diagnostic picture. Most students with "manic" symptoms will, in fact, not have a bipolar disorder, given the low prevalence rates compared to other more common diagnoses (e.g., attention deficit hyperactivity disorder [ADHD]; Arnold et al., 2011). Even though the probability estimate is low, there will be a small subpopulation of adolescents present within the school who are experiencing one of the disorders on the bipolar spectrum. Unfortunately, there is not a prototype for PBD; meaning no "poster child" by which to compare the diagnostic picture of potential cases, nor is there one specific symptom that is exclusive to all youth with PBD (Kowatch et al., 2005). However, a set of well-supported commonalities and risk factors has been reported in the literature (Biederman, 1998; Van Meter, Burke, Kowatch, Findling, & Youngstrom, 2016). As part of an evidence-based assessment approach, adolescents with the following features or circumstances could be referred credibly to consider the possibility of a PBD diagnosis.

Family History of a Bipolar Disorder

Bipolar disorders are one of the most heritable conditions and also strongly predicted by the interaction of genetic and environmental factors (Hodgins, Faucher, Zarac, & Ellenbogen, 2002). For children and adolescents, having a first-degree relative with a bipolar disorder increases the risk by five times. A second-degree relative poses at least twice an increase for the risk of developing PBD (Youngstrom, Findling, Youngstrom, & Calabrese, 2005). In addition, the presence of any mood disorder among parents increases the risk of developing PBD, with the probability further increasing when both parents have experienced a major depressive episode (Findling et al., 2001). For an adult, the risk of developing a bipolar disorder is ten times more likely compared to an individual without such a familial background (Gottesman, Laursen, Bertelsen, & Mortensen, 2010).

Adolescent Depression

Approximately 14% of adolescents will meet full criteria for a major depressive episode at any given time, a point prevalence rate roughly three times higher than the prevalence rates for PBD (Merikangas, He, Burstein et al., 2010). Of all cases of adolescent depression, one third will evolve into a bipolar spectrum disorder when followed longitudinally (Angst et al., 2003). Most children who suffer from a depressive episode will not develop the manic symptoms of PBD, but many children who later meet criteria for PBD will experience depression or subthreshold symptoms of depression before the onset of mania (Egeland et al., 2012; Mesman, Nolen, Reichart, Wals, & Hillegers, 2013). Because it is rare for only mania to be present in a case of PBD (Hammen & Rudolph, 2003), it is important for educators to know that the probability of PBD increases among the subpopulation of adolescents

who have a history or are in the midst of a major depressive episode, especially for teens who present with mixed mood features.

Adolescent Substance Abuse

Substance use and dependence is higher among adolescents who experience symptoms of PBD compared to those who do not (Goldstein et al., 2013; Lewinsohn et al., 1995). The use or abuse of substances, including illegally obtained prescription drugs, exacerbates the symptoms and course of PBD (Goldstein et al., 2013). Among children and adolescents who have presented for treatment for PBD, 12% met criteria for a substance use disorder (SUD) at that time of presentation (Kowatch et al., 2005). This may be an underestimate, since few studies have examined substance use, and those that did contained participants who were less impaired than the majority of adolescents with PBD (Kowatch et al., 2005). According to one estimate, approximately half of adolescents with a bipolar spectrum disorder will meet criteria for a SUD by adulthood (Goldstein et al., 2013).

During a manic or hypomanic state, adolescents may abuse alcohol or sleeping medications in order to fall asleep, potentially leading to dependence and further substance experimentation (Goldstein et al., 2013). They may also try substances due to impulsivity or heightened sensation seeking at these times (Youngstrom & Algorta, 2014). In a longitudinal study ($N = 167$) of adolescents and young adults diagnosed with PBD, 32% experienced the onset of a SUD by age 18 (Goldstein et al., 2013). The majority of these participants reported first use of a substance by 15 years old, with the most common substance being cannabis followed by alcohol. More than three quarters of the subsample reported eventually becoming poly-substance users.

It is important that educators are aware of the negative consequences of PBD alone, but also know that PBD increases the risk for the substance abuse problems later on. Although it is commonly believed that experimentation with alcohol is a normative process for a teenager, there is a strong link between first experimentation and the development of a SUD an average of 2 years later if that child has been struggling with symptoms of PBD (Goldstein et al., 2013). The potential for a SUD and PBD duo is heightened with the presence of the additional diagnoses of oppositional defiant disorder (ODD) or panic disorder (PD), a family history of a SUD, or low cohesiveness among family members (Goldstein et al., 2013).

Adolescent Psychosis

Another warning sign for school personnel is if a child reports significant delusions or hallucinations (Tillman et al., 2008). Although PBD is uncommon, schizophrenia is even more rare in childhood. If a youth reports psychosis bound to an isolated period of time, it is more likely for the diagnosis to be a mood disorder (i.e., depression with psychotic features or a bipolar disorder), instead of a delusional disorder (Tillman et al., 2008). Approximately 20–40% of children and adolescents will experience psychotic symptoms during the course of a manic episode (Kowatch et al., 2005).

Adolescents with Sleep Disturbances

A complaint that often differentiates more common childhood disorders from PBD is episodic problems with sleep. More than two thirds of youths with PBD have periods where the need for sleep substantially decreases (Kowatch et al., 2005). Adolescents with PBD may report sleeping only for a few hours that previous night, but that they feel unaffected and rested (Murray & Harvey, 2010). These episodes of needing less sleep most often coincide with increased energy and emotional excitability (Van Meter et al., 2016). Along with decreased need for sleep, heightened mood or euphoria is commonly reported as well as grandiosity in thinking during these times (Kowatch et al., 2005; Van Meter et al., 2016). This behavior would only be of concern if these episodes of lessened sleep differ

from the child's baseline number of hours needed to feel rested. Distractibility often presents along with these symptoms, and in the classroom, this could look like ADHD to an educator. Herein another common mistake often made and why assessment of sleep is important to ascertain the most accurate clinical picture.

What PBD Looks Like in the Classroom

The majority of PBD cases observed in the classroom are three to five times more likely to meet criteria for bipolar II, cyclothymia, or NOS/OS-BRD, rather than the classic bipolar I presentation (Lewinsohn et al., 1995; Merikangas & Lamers, 2012; Mesman et al., 2013). However, the appearance of depression, hypomania, and mania in the classroom are not likely to be separated into neat episodes, but more likely to present intermittently with mixed symptoms (Geller & Luby, 1997; Youngstrom & Algorta, 2014). A mixed state is defined as experiencing symptoms of hypomania and depression during the same episode, a presentation that could be best described as "agitated depression" (Youngstrom & Algorta, 2014). In general, males are more likely to exhibit manic symptoms than female students, who more often experience the depressive symptoms associated with PBD (Duax, Youngstrom, Calabrese, & Findling, 2007).

PBD has been found to present differently in younger children in comparison to adolescents (Youngstrom & Algorta, 2014). Higher rates of manic symptoms are reported in younger children, partly due to their developmental maturity and the high comorbidity rates with ADHD. Adolescents with PBD are more likely to experience greater depressive symptoms than those with ADHD (Youngstrom & Algorta, 2014). In one rural setting, a set of features that characterized children who later developed PBD in adolescence included poor attention, hyper alertness, extreme excitability, somatic complaints, labile mood changes, and patterns of low energy or excessive tiredness (Egeland et al., 2012). For this distinctive sample, symptoms became more episodic and pronounced as the children reached adolescence (Egeland et al., 2012).

While increased energy and hyperactivity are the symptoms first noticed by an adolescent when entering a manic or hypomanic state, irritability and distractibility are most likely the first symptoms to be noticed by a caregiver (Freeman, Youngstrom, Freeman, Youngstrom, & Findling, 2011). Other common manic-specific symptoms include episodes of excessive energy, pressured speech, and racing thoughts (Kowatch et al., 2005; Van Meter et al., 2016). During a manic or hypomanic episode, youths with PBD compared to other children are more likely to show greater mood lability and episodic aggression (Kowatch et al., 2005). Grandiosity that looks like narcissism is an important feature that differentiates PBD from other more commonly diagnosed disorders in childhood such as ODD or ADHD (Freeman et al., 2011). Periods of focused goal-directed activity, which may look like an adolescent initiating projects and/or large plans without follow-up or follow through, are common (Van Meter et al., 2016). More than likely, youths with manic symptoms will exhibit more behavioral problems (e.g., class disruptions) and face more discipline referrals associated with poor judgment than other students (Youngstrom & Algorta, 2014).

Aggressive behavior is the most debilitating feature for children and adolescents experiencing PBD (Youngstrom, Freeman, & Jenkins, 2009), because it can lead to consequences that directly impact academic outcomes (e. g. suspensions, expulsions). Irritability may stem from the cognitive impairments that youths with PBD experience. Youths diagnosed with ADHD only experience greater broad executive functioning impairment, but those with PBD also have difficulty suppressing their responses to distractions or unimportant background stimuli (Walshaw, Alloy, & Sabb, 2010), in addition to having trouble thinking in flexible ways when faced with a complex problem (Jiménez, Ballabriga, Martin, & Arrufat, 2015). Such cognitive deficits can lead to frustration and aggression. Compared to the inattention and hyperactivity associated with ADHD, deficits in problem-solving and inhibiting

emotional reactions are more pronounced in cases with bipolar diagnoses (Jiménez et al., 2015; Walshaw et al., 2010).

The Evidence-Based Framework for the Assessment and Treatment of PBD Optimized for the Rural School Setting

Evidence-Based Assessment

Establish Reasonable Base Rates

Before referring a student for the possibility of a PBD diagnosis, one must consider the base rate for bipolar disorder in that particular setting (Youngstrom & Duax, 2005). A base rate gives school personnel or clinicians in the school a percentage to start from when examining the likelihood of the diagnosis. In one high school sample, a prevalence estimate was found to be 0.6% for a full criteria bipolar disorder (Lewinsohn, Klein, & Seeley, 2000). As estimated from a community sample, 5–6% of a high school population could be dealing with subthreshold symptoms or full criteria PBD (Lewinsohn et al., 1995). Therefore, mental health clinicians working within any school system could begin with a benchmark of 6% before taking other risk factors (e.g., family history) into account (Youngstrom & Duax, 2005).

Begin Collecting Measurement Data

Although family history is a robust and well-replicated risk factor, it does not necessarily confirm a bipolar diagnosis. Most youths with a relative with bipolar disorder will not have the disorder themselves. After determining base rate and family history, a broad-scale assessment tool can assess the general emotional, behavioral, and adaptive functioning of the student. Well-established screening tools include the Behavioral Assessment for Children, Second Edition (BASC-2; Reynolds & Kamphaus, 2004), the Child Behavior Checklist (CBCL; Achenbach & Rescorla, 2000), or the Strengths and Difficulties Questionnaire (SDQ; Goodman, 2001).

A child with PBD will likely show multiple elevations on a broadband questionnaire, but the Externalizing subscale on the CBCL or BASC-2 provides the most information on adjusting the true diagnosis probability (Youngstrom et al., 2004). For example, if Sarah (from the opening vignette) scored above the *T*-score cutoff of 70 on the Externalizing subscale, the likelihood of PBD would increase moderately (Youngstrom et al., 2004). If Sarah also had a first-degree biological relative with bipolar disorder, the probability percentage would increase to approximately 50% (Youngstrom & Youngstrom, 2005). On the other hand, if Sarah scored low or in the insignificant range on the Externalizing scale of a broad-scale measure, the probability percentage would lower dramatically, and PBD could likely be ruled out as a diagnostic possibility (Youngstrom et al., 2004).

Many clinicians may hastily assign the PBD diagnosis when working with a child with a positive family history and an elevated Externalizing score. However, in a school-based setting, there remains an equal chance that this child does not have the diagnosis (approximately 50%). The next step would be to administer brief screening instruments that target manic symptoms, ideally obtaining ratings from the parent or adult most familiar with the youth's behavior. Some manic symptoms are more specific to PBD than aggression and irritability: elated mood, grandiosity, unstable self-esteem, goal-directed activity, and increased energy (i.e., decreased need for sleep) (Van Meter et al., 2016; Youngstrom, Joseph, & Greene, 2008). Examples of valid mania-specific tools are the Parent version of the Mood Disorder Questionnaire (Wagner et al., 2006), the Child Mania Rating Scale (Pavuluri, Henry, Devineni, Carbray, & Birmaher, 2006), and the Parent General Behavior Inventory (Youngstrom, Findling, Danielson, & Calabrese, 2001; Youngstrom, Frazier, Demeter, Calabrese, & Findling, 2008). An elevated score on a brief checklist measure increases evidence for ruling the diagnosis in, and low scores decisively rule the diagnosis out.

Administer Confirmatory Measurement Tools

All the measurement tools so far have been relatively brief and inexpensive, using checklists and rapid screening for risk factors. This process is sufficient to rule out bipolar disorder in many cases, though it does not yield enough information to make a positive diagnosis of bipolar disorder. In order to confirm a diagnosis, the collection of additional information on daily functioning and administration of a semi-structured interview is clinically indicated (Youngstrom & Youngstrom, 2005). Further assessment can include administration of a full semi-structured interview or only the mood modules (Youngstrom, Jenkins, Jenson-Doss, & Youngstrom, 2012). Administering a full semi-structured interview is time-intensive but effective in determining additional diagnoses as either competing hypotheses or potential comorbidities. Lastly, life-charting or mood-monitoring techniques are helpful in pulling apart patterns associated with PBD (Denicoff et al., 2000). As PBD is ruled out through the evidence-based practice framework, another diagnosis will almost always be ruled in via this diagnostic process. After the appropriate diagnosis is established, the treatment phase begins.

Additional Considerations

The CBCL Parent report consistently shows higher diagnostic validity than the Teacher or Self-report forms for discriminating bipolar from other disorders (Youngstrom et al., 2004). In fact, parent report on any measure specific to mania has been found to be more accurate for the purpose of detecting PBD (Wagner et al., 2006; Youngstrom, Genzlinger, Egerton, & Van Meter, 2015; Youngstrom et al., 2004). This may be due to the fact that lack of self-awareness is woven into the presentation of mania and hypomania, and the consequences to others from mania or hypomania may not be noticed by the child (Dell'Osso et al., 2002). It is important to note that a parent's credibility should not be hindered by a personal history of a mood disorder or current stress level. A clinician is encouraged to use personal judgment based on other information (e.g., validity scales on questionnaires) when determining the credibility of a parent or caretaker's report, instead of sweeping or intuitive judgments (e.g., "Dad's not a legitimate source because he was diagnosed with bipolar two years prior;" Youngstrom et al., 2011; Youngstrom et al., 2015).

Although it might be counterintuitive that a parent's report is more accurate than a teacher's report, the teacher is often not well-positioned to observe the hallmark features of mania (e.g., decreased need for sleep). Also, teachers are likely to attribute many of the disruptive features of PBD to ADHD or deliberately oppositional behavior (Youngstrom, Joseph et al., 2008). Many teachers have been trained or have had more experience in detecting the signs of a learning disability, but few have had equal amounts of training or time dedicated to learning about students with PBD. Given the overlap in symptoms, it is understandable that behavior associated with PBD is more likely to be classified and treated as ADHD (Arnold et al., 2011).

Approximately 60% of children with PBD-seeking services will also meet criteria for ADHD (Geller & Luby, 1997; Kowatch et al., 2005; Youngstrom, Meyers, Youngstrom, Calabrese, & Findling, 2006). Individuals with comorbid PBD and ADHD are more likely to be male and younger (Craney & Geller, 2003). Also, those with PBD often have a diagnosis of oppositional defiant disorder. Externalizing features of ADHD like impulsivity and hyperactivity tend to present before the symptoms specific to PBD such as excessive elation and grandiosity (Geller & Luby, 1997; Kowatch et al., 2005; Van Meter et al., 2016). Older adolescents are likely to be diagnosed with conduct disorder once they become more impaired by the aggressive and impulsive symptoms of the comorbidity (Kowatch et al., 2005).

Evidence-Based Treatment and Maintenance of Gains

Working within a rural setting presents additional barriers to quality assessment and treatment for any psychiatric disorder. Rural areas tend to have

a larger number of individuals who are older, live in poverty, have difficulty accessing medication and mental healthcare, and have higher rates of stigma towards mental maladies and help-seeking behavior (Slama, 2004). Clinicians in rural areas must adapt to suboptimal circumstances and adjust the way traditional service delivery has been accomplished in the past (Owens, Watabe, & Michael, 2013). Instead of working within the "four-wall therapy" format, clinicians are encouraged to embed themselves within the culture of the child's school, home, and community (Owens et al., 2013). Clinicians in rural areas must approach high-risk clients proactively, diligently planning for worst-case scenarios before they happen. For example, a safety plan of action tailored to each individual case should be established early in treatment. Potential considerations include risk-management plans surrounding issues such as access to guns and crisis-intervention plans for areas in which the closest psychiatric hospital is a day's drive away.

Pharmacological Treatment

Clinicians who work with students with PBD are charged with the arduous task of treating not only the externalizing symptoms of mania, but the internalizing symptoms of the disorder as well. Currently, the most efficacious treatment for reducing the acute clinical symptoms of bipolar disorder is pharmacological treatment (Swartz & Thase, 2011). Ideally, a psychiatrist who specializes in child and adolescent disorders would be treating the symptoms. This will be difficult to obtain in rural settings as 70% of the Appalachian region, for example, has been labeled as a mental health clinician shortage area, and 95% of rural counties with populations below 20,000 do not have a child psychiatrist physically present within the area (Gamm, Stone, & Pittman, 2008). But without pharmacological treatment, the disorder can rapidly exacerbate over time and reoccur episodically (Kanba, Kato, Terao, & Yamada, 2013). Further complicating matters, even when a child is in a depressive episode of PBD, the symptoms are often resistant to antidepressants (Kanba et al., 2013; Pacchiarotti et al., 2013).

One way to meet the current and poor status of medication providers in rural areas is the clinician taking on the role as a case-manager for high-risk individuals (Owens et al., 2013). A case-management approach may be necessary, with the primary task of helping families make connections and access available resources (e.g., substance abuse treatment groups, parent support groups) within the community. Chances are communication among these entities will be insubstantial; therefore, the clinician working within a school and rural setting could be increasingly valuable as a liaison in addition to his or her vocation for assessment and treatment. In addition, the parent or caregiver is encouraged to monitor the child's response to new medications, which could include taking notes to inform the prescribing doctor at the next scheduled appointment.

Psychosocial Treatment

Psychosocial intervention combined with medication further helps to prevent or delay relapse into a manic or depressive episode (Hofmann, Asnaani, Vonk, Sawyer, & Fang, 2012; Kanba et al., 2013; Miklowitz et al., 2011). Cognitive behavioral therapy has been found to be effective in targeting the depressive symptoms of PBD, but is not as robust when used as a stand-alone treatment for mania (Hofmann et al., 2012). Environmental stress is one of the strongest predictors of relapse (Kanba et al., 2013); therefore, the most effective treatments include family members. Treatment should include clear rationales for therapeutic techniques, mood-monitoring, communication training, psychoeducation, and problem-solving skills building to enhance the possibility of transfer outside of therapy (Fristad & MacPherson, 2014; Miklowitz & Scott, 2009; Miklowitz et al., 2011).

Poor family functioning and communication are directly linked to earlier onset of the disorder and lackluster treatment response (McClellan, Kowatch, & Findling, 2007). Engaging family members in treatment not only reduces the stigma associated with the diagnosis, but also creates a supportive network for the youth. Family-focused psychoeducational treatment for bipolar adoles-

cents (FFT-A) is a promising intervention that significantly reduces PBD symptoms and improves daily functioning (Fristad & MacPherson, 2014; Miklowitz et al., 2011). FFT-A is structured and comprises three treatment modules: family psychoeducation, communication enhancement training, and problem-solving skills training. Specific treatment components for both the youth and family include recognizing prodromal features of an episode, learning the difference between mood dysregulation and appropriate emotional reactivity, determining stressors that trigger episodes through mood-charting, and changing the communication styles of all family members (Miklowitz et al., 2011). Increasing family's knowledge of the disorder has been found to significantly increase the families' perceptions of support and coping ability, as well as increase positive attitudes associated with treatment (Fristad, Goldberg-Arnold, & Gavazzi, 2002; Fristad & MacPherson, 2014). Broadly, the main focus of FFT-A is to detangle and correct the negative communication styles among family members that involve excessive criticism, hostility, and overbearing protective behavior (Miklowitz et al., 2011). Families should be encouraged to continue using communication-management techniques learned in therapy, even after symptoms of PBD have diminished (Miklowitz & Scott, 2009).

Assessment During Treatment

Whether the child is receiving treatment in or outside of school, brief symptom checklists should be used periodically to measure progress (Youngstrom et al., 2009). Something as small and simple as a numbering system (e.g., 1–10) can effectively measure mood change (Youngstrom et al., 2009). At mid-point of treatment, a lengthier tool, such as the Kiddie Schedule for Affective Disorders and Schizophrenia (K-SADS) Mania scale, can be used to better determine if gains have been made (Axelson et al., 2003). Given the labile nature of PBD, it is important to assess for suicidal ideation and intent at the beginning of every session (Novick et al., 2010).

Life-charting is not only helpful for initial assessment, but for tracking treatment response as well (Post et al., 2011). Also called mood-monitoring, this is a technique that can be taught in session and then completed at home where the individual documents a numerical value to each day on a mood scale. One commonly used instrument, the *Life Chart Method* (Denicoff et al., 2000),[1] provides check boxes that range from −3 to +3 and includes anxiety and irritability ratings for each day. The tool can help detect medication side effects, events that trigger high emotional arousal, and sleep patterns associated with mood.

In order to obtain a comprehensive picture, it is important to include parent's report in addition to the student's report when assessing treatment response. Shorter parent checklists are equally as sensitive to treatment outcomes when compared to full length measures (Youngstrom et al., 2012). In addition to collecting objective data, it is recommended that information about social functioning and daily living be gathered on a regular basis. Although teacher report devices are not as useful as parent report for initial assessment purposes, data collected from teachers and school personnel are helpful when designing or redesigning interventions and monitoring classroom performance.

The Rural School Setting

Bipolar disorders are roughly twice as common as autism, but a third as common as depression or ADHD (Merikangas, He, Burstein et al., 2010), yet there is a grave lack of research examining outcomes of evidence-based assessment and treatment for those with PBD within the rural school setting. Evidence-based psychotherapy delivered within the school has been found to be effective in the past for treating adolescent depression and increasing academic performance (Reynolds & Coats, 1986; Sander, Everts, & Johnson, 2011). Even if treatment does not explicitly target disruptive behaviors, it can yield

[1]The Life Chart Method instrument can be found for free at http://www.cqaimh.org/pdf/tool_edu_moodchart.pdf.

moderate to large effect sizes overall (Baskin et al., 2010). Although past studies have examined children with a wide array of functional difficulties, similar outcomes could be expected for individuals struggling with PBD in the school.

Challenges associated with rurality can be discouraging, but accurate assessment and effective treatment for PBD within a rural school setting are feasible. Preliminary studies that examined the impact of mental health services delivered by clinicians embedded within the rural high school setting have found significant clinical symptom improvement (Albright et al., 2013; Michael et al., 2013, 2016). Two small subsamples within these studies included adolescents with mixed mood symptoms, and individual evidence-based treatment improved symptoms and some academic outcomes for these students (Michael et al., 2013, 2016). Most cases stabilized in terms of grade point average, attendance, and discipline referrals (Michael et al., 2013).

Next Steps: What Educators and Clinicians Can Do Right Now

Next steps for educators and clinicians are separated into specific responsibilities for each (see Tables 13.1 and 13.2). The first step in Tables 13.1 and 13.2 seems simple but can be the most difficult in practice. Educators and clinicians are encouraged to be open to working with individuals with a bipolar diagnosis and the associated behaviors. This involves working together to distinguish behaviors that are categorized as psychological in nature from those that solely deserve disciplinary consequences. School personnel are not encouraged to be permissive when rules are broken. Instead, the first step represents a school personnel's willingness to coordinate with parents and treatment providers to form decisions that benefit a student's long-term success.

The optimal time to intervene upon a child with a bipolar disorder is before age 15 (Goldstein et al., 2013). Therefore, an immense amount of responsibility is charged to educators to help detect and bring this child to care before a negative trajectory is paved. Educators hold a vast amount of knowledge and experience that could inform treatment greatly. In turn, astute clinicians have the tools and training necessary to follow through with evidence-based assessment and treatment. After permissions are obtained, both clinicians and educators are encouraged to communicate with greater frequency than what may

Table 13.1 Next steps for educators working with youth with mood disorders

1	Be open to working with children with a bipolar diagnosis
2	Know the four types of bipolar defined in the *DSM-5*, and know what they can look like in the classroom
3	Know how common bipolar disorders are in your area—know the base rates!
4	Work to involve and motivate parents in the assessment and treatment process
5	Keep the line of communication open with clinician
6	Request and frequently refer to list of recommendations from clinician to help support emotional and behavioral regulatory growth of the child, as well as social and educational success in the school

Table 13.2 Steps for clinicians working in collaboration with educators

1	Be open to working with school personnel for the benefit of the child. Have a plan to respect confidentiality while providing appropriate updates to other stakeholders
2	Know the four types of bipolar defined in the *DSM-5*, and know what they can look like in the classroom and in the clinical interview (see Youngstrom & Algorta, 2014 for review)
3	Know the base rates for mood disorders and similar conditions in school, rural, and/or outpatient settings
4	Have checklists available that are bipolar-specific—some of the best are free!
5	Know what checklist scores mean in terms of changing probability of bipolar diagnosis for individual cases
6	Work with educators to help involve and motivate parents in the assessment and treatment process
7	Keep the line of communication open with clinician throughout assessment and treatment
8	Provide a list of recommendations to educator that pertains to emotional, behavioral, social, and academic functioning of the student

be or feel typical, while continuing to involve parents throughout all phases of assessment and treatment. A strong collaboration between schools and mental health clinicians is imperative to keeping children with pediatric bipolar in school, safeguarding them from the detrimental consequences of severe mental illness.

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Supporting Students with Autism Spectrum Disorder in Rural Schools

14

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Autism spectrum disorder (ASD) is a neurodevelopmental disorder that is characterized by restricted or repetitive patterns behavior of behavior, interests, or activities, and impaired social interaction and communication. The number of students with ASD has increased dramatically in recent years (CDC, 2016) and with this has come a pressing need for educators to develop skills in accurately identifying autism and in meeting the needs of this very diverse population. This is challenging in any school; however rural schools often face additional challenges when attempting to support students with ASD due to factors such as a relatively small number of students with ASD in a given school, and geographic barriers limiting access to resources (Ashburner, Vickerstaff, Beetge, & Copley, 2016).

In this chapter we describe a model of supports for students with ASD, building off our experiences helping schools develop and sustain effective academic, social, and behavioral practices for students with ASD and other disabilities, as well as for typically developing students. We begin with an overview of ASD and then describe a systems framework schools might adopt to enhance supports for this population. We provide suggestions for how school-based mental health professionals might play a role in this effort and suggest options that rural schools with varying levels of resources might adopt. We then define key features of effective supports for students with ASD, describing methods of identifying students with ASD in schools and reviewing evidence-based interventions. We conclude by describing directions for future research.

Autism Spectrum Disorder: An Overview

Individuals with ASD exhibit behavioral excesses and deficits in social communication and interaction and in restricted and repetitive behaviors, interests, and activities. Autism is heterogeneous in presentation, with some individuals appearing to be only mildly impacted whereas others have significant behavioral deficits and excesses that dramatically affect their ability to function. For example, a student who is mildly impacted by ASD may communicate well using spoken words but might have difficulty recognizing and using social cues such as body language or facial expressions. Another student might give long monologues on a preferred topic, such as types of

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vacuum cleaners, failing to notice that others might not share the same intense fascination. Other students might struggle with back-and-forth dialogue when talking with others, or tend to speak using very precise language and frequently draw upon an extensive vocabulary, not recognizing that few peers talk to one another in this way. Other individuals may not communicate at all, or must be taught to use pictures or other symbolic communication, and even then may be only able to express rudimentary wants and needs.

The range in deficits and excesses also is apparent with regard to restricted and repetitive patterns of behaviors, interests, and activities. Some students with ASD appear insensitive to environmental changes that others respond to almost automatically, such as an alarm going off or extreme kinesthetic stimulation such as stepping outside into freezing weather or touching a hot surface. Many students with ASD engage in repetitive behavior that can interfere with their ability to function or that is stigmatizing, such as jumping and twirling, or repeating words or sentences over and over again. Other individuals might develop obsessions; intense interests, for example in military equipment or in numbers; or compulsions, such as the need to tap doorframes three times upon entering or exiting a room.

At one time, ASD was considered rare; however prevalence estimates are increasing. The Centers for Disease Control and Prevention (CDC) (2016) estimates that approximately 1 in 68 children in the United States meet the criteria for ASD, which equates to roughly 1.5% of the population. Although ASD occurs among all racial, ethnic, and socioeconomic groups, prevalence rates are somewhat uneven. For example, using data from the 2009–2010 National Survey of Children with Special Health Care Needs, Jo et al. (2015) found that ASD was more prevalent among non-Hispanic-white children than both non-Hispanic-black children and Hispanic children, especially those born from foreign-born and non-English-speaking parents. Jo et al. speculated that the differing prevalence rates were not due to genetic or hereditary factors but rather were attributable to lower rates of identification in non-white populations, reflecting cultural, language, and socioeconomic barriers to seeking and accessing mental healthcare.

Gender differences in the prevalence of ASD are evident; boys are roughly four times more likely to receive a diagnosis of ASD than girls, with prevalence rates of 1 in 42 and 1 in 189, respectively (CDC, 2016). It is unclear whether the gender discrepancy in prevalence rates is due to a greater risk of developing ASD among boys, challenges associated with accurately identifying girls with ASD due to idiosyncratic symptom profiles, or some combination (Dworzynski, Ronald, Bolton, & Happé, 2012).

There is a high co-occurrence of ASD and intellectual disability with comorbidity estimated between 50 and 70% (Goldin, Matson, & Cervantes, 2014; Matson & Shoemaker, 2009). Recent prevalence studies also have shown a high comorbidity between ASD and anxiety disorders, attention-deficit hyperactivity disorder, depressive disorders, and oppositional defiant disorder (Simonoff et al., 2008). Specifically, approximately 70% of individuals with ASD meet the criteria for one additional diagnosis and about 40% meet the criteria for two or more comorbid diagnoses. Comorbid medical conditions such as constipation, sleep problems, or epilepsy are also common (American Psychiatric Association, 2013).

Supporting students with ASD in schools can be challenging, given the diverse needs of this population and the varying level of resources necessary to meet these needs. In the next section we describe a framework that may help schools develop and maintain the ability to meet the needs of all students with ASD.

A Framework for Capacity Building in Schools

Research has shown that educators are most able to meet the academic and social behavioral needs of students when schools invest in a comprehensive and long-term plan that includes emphasizing data-based decision making and use of evidence-based interventions matched to student need. Two widely used examples of such approaches are response to intervention (RTI;

Fletcher & Vaughn, 2009) and school-wide positive behavior interventions and supports (SWPBIS; Horner, Sugai, & Anderson, 2010). Both frameworks emphasize the use of (1) systems to train and support educators, (2) benchmarking and other assessment to identify students who might benefit from intervention, (3) evidence-based interventions matched to individual student needs, and (4) a mechanism for monitoring student progress within and across the student body. This same logic could be applied to supporting students with ASD in schools.

Systems to Train and Support Educators

Because students with ASD present with a diverse assortment of strengths and deficits, a great deal of expertise is required to design, implement, and sustain effective systems to support students with ASD in school. Large schools may build "in-house" capacity, hiring individuals with expertise in evidence-based assessment and intervention, but smaller schools with fewer students with ASD in a given school or rural schools that may have trouble attracting and retaining staff with such specific expertise may be more successful if they combine resources across schools or districts or utilize outside consultants. A good resource for identifying outside consultants is the Behavior Analysis Certification Board's website: bacb.com. The Board maintains a list of certified behavior analysts organized by country and state (province within Canada). Schools and districts can use this website as a starting point for identifying local providers who may have expertise in evidence-based assessment and intervention for individuals with ASD. Once potential providers have been identified, it will be important to interview them to ascertain their experience working in schools and providing consultation services similar to those that are desired. There are also a growing number of organizations that provide consultative services to support individuals with ASD. Before entering into a relationship with an organization, a school should review the organization carefully to determine (a) the nature of services provided, (b) skills and credentials of service providers, and (c) evidence that the organization has worked closely and successfully with schools.

Whether a school builds internal capacity or relies on outside expertise, there are several key areas in which autism-specific expertise is required including evaluating autism spectrum disorder, selecting appropriate interventions, training and coaching, and progress monitoring. Each is described next.

Evaluating ASD

Schools supporting students with ASD will need access to expertise in how to best identify students with ASD. As described later, there are a variety of assessments available for use in this process and a gated assessment system is recommended. Autism evaluations are best conducted by a multidisciplinary team whose members have specific knowledge about ASD. Further, at least some team members should be well versed in the diversity of ways that ASD can present across core deficit areas and in assessing for commonly observed comorbidities. While it is possible for such teams to be made up entirely of "in-house" staff, it is more common for districts to put together a team that works across schools in the district. This is particularly true in rural areas, where specialists may work across multiple buildings.

Selecting Appropriate Interventions

Students who meet eligibility criteria for ASD may require supports in multiple areas, including but not limited to deficits in social communication and interaction and restricted or repetitive patterns of behavior, interests, and activities. For example, beyond these two diagnostic areas, many students with ASD struggle with planning and organization, following routines and schedules, acquiring and maintaining skills, and problem behavior. In a later section we review evidence-based interventions for students with ASD, providing a schematic for matching intervention to student need.

As schools build capacity in supporting students with ASD, they will need access to one or

more individuals who are well versed in evidence-based interventions for this population. Because there are many interventions that either are not supported by evidence (e.g., sensory integration therapy; Leong, Carter, & Stephenson, 2014) or have been shown to be ineffective at best (e.g., facilitated communication; Lillenfeld, Marshall, Todd, & Shane, 2014) and, at worst, harmful (e.g., holding therapy; Mercer, 2014), it is important that those who are guiding intervention decisions understand how to evaluate the literature supporting a given intervention. The first question is whether an intervention has been found to be effective in experimental (either a randomized controlled trial or single-subject design) studies.[1] If an intervention is evidence-based, those assessing the intervention also should determine whether the resources required to implement the intervention are available in the school. For example, discrete trial training has been found to be an effective intervention for teaching skills (Smith, 2001) but it requires access to a highly trained instructor who can work with a student on a 1:1 basis, which may be unfeasible for many schools. Further, discrete trial training generally is implemented in a setting in which distractions have been minimized, something that can be difficult to do in a typical classroom.

School-based mental health professionals will generally have sufficient training in research methodology to evaluate the extant literature and to work with teams to analyze resources needed for a given intervention. Schools without access to such systems may have school psychologists or other individuals with this skillset or be able to identify and hire one or more individuals with expertise in identifying evidence-based interventions and matching intervention to student need. Rural schools may be better off relying on an outside consultant to fulfill this role, particularly if there are only a few students with ASD in the school.

[1]What Works Clearinghouse provides guidelines for evaluating both group design and single-subject design research; guides can be found at http://ies.ed.gov/ncee/wwc/StudyReviewGuide.

Initial Training and Ongoing Coaching

Schools supporting students with ASD will need access to both initial training and ongoing consultation. This training will be necessary first to provide basic understanding of ASD (via awareness level training) and to then build skills in evidence-based supports.

Awareness-Level Training

As a starting point to capacity building, whether the goal is to build internal capacity or utilize outside resources, schools will want to begin with awareness-level training for all faculty and staff. The goal of such training is to provide all educators with a background in ASD, so that everyone is familiar with the features of ASD and the heterogeneity of the disorder. This training also should provide teachers with guidance in creating learning environments that facilitate learning for students with ASD and an overview of evidence-based intervention (Goodall, 2015). Some schools may also want to include information about evidence-based versus nonevidence-based interventions and, if most teachers are not familiar with data-based decisions, guidance on the importance of collecting and using relevant information to guide decisions about interventions.

Training in Specific Interventions

Whether schools have within-school expertise or are using outside consultation, a major focus of training will be helping teachers and other staff learn to implement evidence-based interventions with specific students. Behavioral skills training (BST; Miltenberger, 2008) is an instructional strategy that addresses the shortcomings of typical in-service (i.e., those that rely solely on didactic instruction) training by including modeling, rehearsal, and feedback in addition to initial instruction. Behavioral skills training can be either group-based (if more than one person will be implementing the intervention) or individualized and consists of didactic instruction and modeling of the skill or technique by the instructor, followed by an opportunity for trainees to prac-

tice the skill or technique with each other or with the instructor, and finally an opportunity for trainees to receive targeted feedback on their performance during the role-play. Training continues with a combination of didactic instruction, modeling, and rehearsal plus feedback until the trainee is implementing the newly learned skill to some preset fidelity criterion. For example, if a teacher was learning to deliver a reinforcer contingent on a specific student behavior, training might continue until the teacher delivered the reinforcer after the target behavior on four out of five consecutive opportunities and never when the target behavior did not occur. Relative to didactic instruction, BST tends to be more engaging for those participating and has been shown to increase treatment fidelity upon initial implementation of interventions (Hogan, Knez, & Kahgn, 2015). BST has been demonstrated to be an effective instructional method for training professionals who work closely with students with ASD across contexts such as teaching proper assessment procedures (Barnes, Mellor, & Rehfeldt, 2014) and intervention strategies (Downs, Downs, & Rau, 2008; Severtson & Carr, 2012).

Although preimplementation training is necessary for educators who will provide interventions for student with ASD, it is by no means sufficient as a stand-alone strategy for at least three reasons: (a) decreased fidelity seems to naturally occur over time, (b) prevalence of paraprofessionals working with students with ASD, and (c) high turnover among educators working with students with ASD.

First, research has shown that even after initial training that resulted in high-quality implementation, implementers often fail to implement the procedure they were trained on with fidelity over time (Long & Maynard, 2014; Sanetti, Kratochwill, & Long, 2013). There are many reasons this might occur, including failure to understand key features of the intervention, poor contextual fit, lack of time or resources, and loss of skill over time. Second, in many schools, interventions for students with ASD are delivered by paraprofessionals, not teachers. Unfortunately, the number of paraprofessionals trained to work with students with ASD has not increased at the same rate as autism diagnoses in recent years (Rispoli, Neely, Lang, & Ganz, 2011) and paraprofessionals tend to be less experienced than certified teachers (Koegel, Robinson, & Koegel, 2009). Third, changes in system capacity (e.g., staff turnover, multiple roles for a single individual) represent a significant barrier to the sustainability of school-based programs (McIntosh, Horner, & Sugai, 2009) if there is not a plan in place for ongoing training and consultation.

For these reasons, it is critical that schools provide staff with access to ongoing training and coaching to ensure high-quality implementation. Coaching should consist of ongoing observations and feedback paired with time for the coach and implementer to meet to discuss any barriers to implementation and to review progress-monitoring data (discussed next) to determine whether any changes are needed in the intervention. Although it is tempting to regard the additional time needed for ongoing observation and performance feedback as unnecessary, research has shown that performance feedback is superior to other methods for improving fidelity such as follow-up interviews and commitment planning (Noell et al., 2005).

Information Systems to Monitor Student Outcomes

Data-based decision making is critical to providing students with the most appropriate educational and behavioral supports. For schools to effectively support students with ASD they must have access to a data information system that allows for adequate progress monitoring of all students receiving intervention.

A useful system will allow educators to define target behaviors (skills or behaviors to increase and challenging behaviors to decrease) for a given student. Educators should be able to develop and enter individualized operational definition of target behaviors and develop an individualized data collection system for a given student and target behavior. There are several commercially available data systems available;

however most are tied to a specific curriculum (e.g., ACE®; http://www.acenecc.org/) or intervention (e.g., catalyst for discrete trial training; http://www.datafinch.com/aboutus). Thus, most educators choose to rely on computer-based spreadsheets such as Excel.

Monitoring the fidelity of implementation is also an important aspect of data-based decision making. Treatment fidelity (also referred to as treatment integrity, procedural fidelity, etc.) refers to the extent to which an intervention has been implemented as intended (Sanetti & Kratochwill, 2009). The importance of monitoring treatment fidelity is twofold; it ensures that services for students with ASD are implemented appropriately, which is tied to improved student outcomes (Wilkinson, 2006). Further, when faced with interventions that do not appear to be effective it allows educators to determine whether the intervention itself is inappropriate for the student or whether the individual implementing the intervention requires additional training or guidance. In this sense, assessment of treatment fidelity is both important for positive student outcomes and allows schools to allocate resources more efficiently (DiGennaro Reed & Codding, 2014; Fryling, Wallace, & Yassine, 2012). Research on treatment integrity suggests that ongoing coaching is necessary to maintain high levels of fidelity (Mortenson & Witt, 1998; Witt, Noell, LaFleur, & Mortenson, 1997); however it can be difficult to determine when additional coaching is needed. The Treatment Integrity Planning Protocol (TIPP; Sanetti & Kratochwill, 2009; available from study authors) provides a means for making this determination. The TIP is a structured format used by an intervention consultant (e.g., school-based mental health professional) and teacher to (a) define an intervention, (b) determine logistics of integrity assessments (e.g., who will conduct, when data will be collected, how data will be used), and (c) develop a psychometrically sound treatment integrity assessment. Research on the TIPP suggests that self-assessment of treatment integrity can be an accurate way to gauge fidelity of implementation and thus determine whether additional coaching is needed, and that use of this protocol increases treatment integrity.

Key Features of Effective Supports for Students with ASD

Once schools have determined whether they will use internal expertise, outside supports, or some combination of the two and have developed a framework for initial evaluation, intervention selection, training/ongoing consultation, and data-based decision making, they will need to define the specific practices that will occur with regard to identification of students and implementation of interventions. Each is discussed next.

Identifying Students with Autism Spectrum Disorder

Children with ASD generally are diagnosed by a psychologist or neurologist in a clinical setting using clinical interviews with caregivers (e.g., Autism Diagnostic Interview-Revised; Kim, Hun, & Lord, 2013), rating scales, and observations (e.g., Autism Diagnostic Observation Schedule, Carr, 2013). Additionally, a comprehensive assessment of cognitive functioning is typically included in the diagnostic process. Although a child must meet diagnostic criteria (using the DSM-5; American Psychiatric Association, 2013) to receive services through private or Medicaid-sponsored insurance (for variations see Johnson, Danis, & Hafner-Eaton, 2014), in the school public school system an individual must only meet eligibility based on the definition of ASD outlined by state educational laws. In addition, each state is required to follow the minimum requirements set forth by the 1997 amendments to the *Individuals with Disabilities Education Act* (IDEA) (1997). Each state has set forth its own guidelines and definitions to guide school-based teams through the process of identifying whether a student qualifies for autism-related services. These requirements vary greatly throughout the United States (Barton et al., 2016). Because of this variability, we provide a framework of recommended assessments and evaluations teams can utilize to help identify stu-

dents in need of autism-related services rather than specific guidelines for diagnosis.

A goal of school-based services for students with ASD should be to ensure that all students in need of support receive assistance. Due to the heterogeneity in presentation of ASD, it will be impossible to meet this goal if eligibility assessment is reserved only for students who "look like they have ASD" or who have received a diagnosis of ASD from a behavioral health provider. Further, using only a single assessment modality likely will result in either over- or under-identification of students with ASD. We thus recommend that educators use a gated screening system to identify students who might meet eligibility criteria for ASD. Assessments used should be evidence based, and we provide examples of evidence-based measures at each gate. This is an ideal role for school-based mental health professionals as these providers are well trained in assessment and in school-wide screening. Wilkinson (2010) provides guidelines for multi-gated assessment, which we describe below.

The first step in the gated system is screening, the purpose of which is to quickly assess the entire population (e.g., all kindergartners). Examples of evidence-based screening tools appropriate for use in schools are the Modified Checklist for Autism in Toddlers, Revised (M-CHAT-R; Robins, 2016); Autism Spectrum Screening Questionnaire (ASSQ; Ehlers, Gillberg, & Wing, 1999); and Pervasive Developmental Disorder Screening Test-II (PDDST-II; Siegal, 2004), and the Childhood Asperger Syndrome Test (CAST; Scott, Baron-Cohen, Bolton, & Brayne, 2002). These measures differ with regard to the age range they are appropriate for and the intended purpose. See Table 14.1 for detailed information about each screener.

Students who are identified via the screening in gate 1 or who educators or parents believe are exhibiting signs of ASD move on to gate 2. The goal of the second gate of the model is to assess the extent to which symptoms of autism are present. This is achieved by administering the Children's Communication Checklist Second Edition (CCC-2; Bishop, 2006), Social Communication Questionnaire (SCQ; Rutter, Bailey, & Lord, 2003), and/or Social Responsiveness Scale—2 (SRS-2; Constantino, 2012). These tools will allow the evaluator to determine the severity of impairment in the following domains: (a) reciprocal social behavior, (b) pragmatic language and communication, and (c) stereotypical behavior and restricted range of interest. The team should continue to gate 3 if either of the following criteria are met: (a) scores suggest that ASD symptoms are present, or (b) symptoms are not present but there is continued concern about the student's social interaction, and communicative, skills and the presence of restricted or repetitive behavior, interests, or activities.

Students who meet the criteria to advance to the third gate should receive a more comprehensive multidisciplinary evaluation. Ozonoff, Goodlin-Jones, and Solomon (2005) recommend the following components be included in the comprehensive assessment: (a) parent interviews and questionnaires (e.g., Autism Diagnostic Interview-Revised [ADI-R]; Lord, Rutter, & Le Couteur, 1994); (b) autism diagnostic tools (e.g., ASSQ); (c) diagnostic observation instruments (e.g., Autism Diagnostic Observation Schedule -2 [ADOS -2]; Lord et al., 2012); (d) intellectual assessment; (e) language assessment; and (f) adaptive behavior assessment. Once students with ASD have been identified, the focus shifts to intervention. In the next section we explore interventions for students with ASD. We begin by reviewing the literature supporting interventions for this population and then describe a general framework schools might use to approach intervention.

Evidence-Based Interventions for Autism Spectrum Disorder

Autism is a heterogeneous disorder with a complex and multifaceted presentation. As a result, no single intervention will be appropriate for use with all, or even most students with ASD. There has been a marked increase in research on interventions for ASD in the last 5–10 years (Smith & Iadarola, 2015), and educators are now faced

Table 14.1 Assessment measures for use in multidisciplinary, gated assessment of ASD

Gate used and measure	Age range	Intended purpose	Number of items	Person completing
Gate I				
M-CHAT-R	≥18 months	Parent-report screening tool to assess risk for ASD. Recommended to be complete at well-child visits	20	Parents
ASSQ	7–16	Screen for high-functioning autism	27	ParentsTeachers
PDDST-II	12–48 months	Identify autism	23	Parents
CAST	4–11	High-functioning autism screening tool	37	Parents
Gate 2				
CCC-2	4–11	Screen for general language impairments, identify pragmatic language impairment and communication impairments, and determine if further assessment is needed	70	Parents
SCQ	4–adult	Screen for characteristics of autistic behavior between ages 4 and 5 and at time of completing the measure	40	Parents
SRS	4–18	Identify skill level of reciprocal social interactions	65	ParentsTeachers
Gate 3				
ADI-R	>2	Used to diagnose autism	93	Experienced clinical interviewer
ADOS	>12 months	Used to diagnose autism	One module depending on age	Trained clinician

with a dizzying array of possible interventions to choose from. Broadly speaking, interventions can be classified as either comprehensive or focused. Comprehensive interventions address most or all areas of need whereas focused interventions target one or a restricted range of goals. Comprehensive interventions generally consist of several focused interventions. An example of an evidence-based comprehensive intervention for young children with ASD is the UCLA Young Autism Program developed by Lovaas et al. (Smith, Groen, & Wynn, 2000). This comprehensive intervention includes several focused interventions such as discrete trial training, prompting, and reinforcement. Due to the broad focus of comprehensive interventions, they tend to be designed for use over extended periods of time (many months or years). Although comprehensive intervention models for schools are in use, to date none have been designated as evidence-based in empirical reviews (see National Autism Center, 2015; Odom, Boyd, Hall, & Hume, 2010). This is unfortunate as comprehensive interventions provide the user with guidelines for assessing the needs of an individual (identifying intervention targets) and then matching intervention to those intervention targets. Comprehensive interventions also provide guidance with regard to which

focused intervention should be used and often provide specific methods for progress monitoring over time.

Focused interventions address a specific target, such as deficits in functional communication or social skills, or behavioral excesses such as repetitive behavior, obsessive behavior, or problem behavior. Focused interventions typically are designed for use during a more limited time frame, such as a couple of months or at most a year. There are now many different focused interventions addressing deficits and excesses associated with a diagnosis of ASD. Several reviews of this literature have been conducted in recent years (e.g., National Autism Center, 2015) with the most recent review by Wong et al. (2015). Wong et al. included studies that (1) were published between 1999 and 2011, (2) had participants who had a diagnosis of ASD and were between the ages of birth and 22, and (3) examined interventions that targeted behavioral, developmental, or academic outcomes. They excluded interventions that could not reasonably be implemented in typical educational, home, or community settings (e.g., dolphin therapy). Wong et al. identified 27 focused interventions that met the criteria for evidence-based[2] but did not analyze results based on setting in which interventions were conducted, so it was not possible to determine which interventions have been shown to be effective when implemented in typical school settings.

To begin to answer this question, we reviewed the literature on the 27 interventions identified by Wong et al. (2015), and analyzed outcomes for studies conducted in schools. Those interventions are listed in Table 14.2. Three interventions, scripting, cognitive behavioral interventions, and parent-implemented interventions, had no peer-reviewed publications supporting use in the schools through 2011. Of the remaining 24 interventions, 5 interventions (antecedent-based interventions, computer-aided instruction, peer-mediated intervention, visual supports, social narratives) had ten or more published studies documenting effectiveness in school settings and three interventions (functional behavior assessment,[3] time delay, and social skills training) had five or more studies supporting effectiveness.

Notably, many of the interventions included in the Wong et al. (2015) review are not specific strategies but rather a general approach that may be applied in different ways. For example, antecedent intervention does not refer to a specific intervention but rather to some manipulation of the environment that occurs prior to a target behavior. The goal can be to set the occasion for or increase the likelihood of a desired behavior (e.g., Taylor et al., 2005) or to reduce the probability of a problem behavior (e.g., Horner, Day, & Day, 1997). Other interventions combine one or more focused interventions. For example, Taylor et al. restricted access to preferred items to increase the likelihood that students would request items from peers, thus increasing social interactions with peers.

Because there are no evidence-based comprehensive interventions designed for use in typical schools, educators will need to select focused interventions appropriate for a given student and context. To assist in this process, we created tables that identify evidence-based interventions appropriate for deficits and excesses associated with autism spectrum disorder (see Tables 14.3, 14.4, and 14.5). In these tables, interventions were

[2]Wong et al. (2015) developed criteria based on published criteria for group designs and single-subject research. A focused intervention was defined as evidence based if (a) at least two high-quality studies with experimental or quasi-experimental designs conducted by two different research groups documented efficacy or (b) it was supported by at least five high-quality single-subject design studies conducted by at least three distinct research groups with at least 20 participants across those studies, or (c) studies supporting the intervention included at least one high-quality experimental/quasi-experimental design and three high-quality single-case designs conducted by more than one research group. "High quality" was defined based on published definitions for each type of experiment. See Wong et al. for definitions.

[3]Although Wong et al. (2015) considered functional behavior assessment an intervention, functional behavior assessment is better considered a label for a variety of different assessment methods used to develop a hypothesis about effects of environmental variables on problem behavior.

Table 14.2 Evidence-based interventions for ASD

Intervention	Definition	Total studies	Studies conducted in schools
Antecedent-based intervention	Alter the environment prior to occurrence of a target behavior to increase the likelihood of a desired behavior or decrease the likelihood of a problem behavior	32	15
Cognitive behavioral intervention	Interventions that address private behavior (thoughts, feelings) as well as overt behavior	4	0
Computer-aided instruction and intervention	Electronic items or equipment are used to facilitate the learner's skill acquisition	20	12
Differential reinforcement [of alternative (DRA), other (DRO), or incompatible (DRI) behavior]	Reinforcement withheld for problem behavior and instead delivered contingent on a specified desired behavior (DRA), any behavior except the problem behavior (DRO), or a response that cannot be emitted simultaneously with the problem behavior (DRI)	26	3
Discrete-trial training	Adult-directed instruction using massed trials within which each trial consists of an antecedent (the prompt), the child's response, and a predetermined adult-delivered consequence (e.g., reinforcement or specific error-correction procedure)	13	2
Exercise	Physical exertion designed to either increase desired behavior or reduce problem behavior	6	3
Extinction	The consequence that reinforced problem behavior is no longer forthcoming, leading to a reduction in that behavior	11	2
Functional behavior assessment	Method of identifying the context in which a problem behavior occurs as well as events that precede and reliably evoke the behavior and events that follow and reinforce the behavior	10	5
Functional communication training	Learner is taught a communication response that serves the same function as the problem behavior	12	3
Modeling	Learner develops a new skill by observing and then imitating another person engaged in the behavior	5	1

(continued)

Table 14.2 (continued)

Intervention	Definition	Total studies	Studies conducted in schools
Naturalistic intervention	Instructional strategies are derived from the principles of behavior analysis and are embedded within the learner's typical activities and routines. Specific target behaviors are encouraged in a sequential manner to build more complex skills	10	1
Parent-implemented intervention	Interventions are delivered by parents in home or community settings	20	0
Peer-mediated instruction and intervention	Adults train typically developing peers to implement strategies designed to help the learner acquire new skills	15	10
Picture exchange communication system	The learner uses a picture to communicate. Training follows six specific phases: (a) learning how to use the system, (b) increasing distance between the learner and the person to communicate with and increasing persistence, (c) picture discrimination, (d) sentence structure, (e) responsive requesting, and (g) commenting	6	3
Pivotal response training	Specific areas identified as key to development (motivation, response to multiple cues, self-management, self-initiation) are targeted for intervention that is delivered in a way that capitalizes on the learner's interests	8	4
Prompting	Cues delivered by the instructor that include verbal, model, or hand-over-hand cues to assist the learner in implementing a behavior	33	9
Reinforcement	Response-dependent delivery (of a desired item or activity) or removal (of an non-preferred item or activity) that leads to an increase in the likelihood of the response occurring in the future	43	8
Scripting	Verbal or written description of a scenario or specific skill that is used prior to the situation that is targeted	9	0

(continued)

Table 14.2 (continued)

Intervention	Definition	Total studies	Studies conducted in schools
Self-management	The learner monitors and records their own behavior and either delivers rewards or recruits rewards contingent on desired behavior	10	3
Social narratives	Individualized description of a social context with key features and desired behavior emphasized	17	10
Social skills training	Instruction in pro-social behavior that includes didactic instruction, role-plays or other opportunities to practice, and feedback	15	5
Structured play groups	Adult-directed play activities occurring within a defined activity and with preselected typically developing peers	4	2
Task analysis	A complex behavior or multistep activity is broken into its component steps to facilitate instruction	8	3
Time delay	Once the learner reliably emits a target behavior following a prompt, a brief delay between the naturally occurring cue for the behavior and the prompt is introduced. The delay is gradually increased over time	12	5
Video modeling	A model (adult or peer) is videoed engaging in the target behavior and the video is used to facilitate learning	32	9
Visual supports	Prompts that are visible to the learner, such as pictures, the way objects are arranged, a schedule, a map, etc. (also called stimulus prompts)	18	10

Note: We counted a study if data from at least one participant were conducted in an in-use portion of a school. Studies in which all data were collected in an empty classroom or unused office were not included. We also excluded preschools

indicated as appropriate for a given deficit or excess if at least one school-based study documented use of the intervention for that problem area. Tables 14.3, 14.4, and 14.5 list interventions that may be appropriate for social communication and interaction; restricted or repetitive behavior, interests, and activities; and commonly occurring additional problems, respectively. In addition there are several comprehensive systems for assessing student needs, selecting appropriate curricula, and monitoring progress that could be useful for educators including the Verbal Behavior Milestones Assessment and Placement Program (VB-MAPP; Sundberg, 2008) and the Assessment of Basic Learning and Language Skills-Revised (ABLLS-R; Partington, 2008).

Table 14.3 Evidence-based interventions for social communication and interaction

Intervention	Domain			
	Difficulty communicating wants and needs	Limited peer interaction	Limited play skills	Deficits in nonverbal communication
Antecedent-based interventions				
Cognitive behavioral intervention				
Computer-aided instruction				
Differential reinforcement	x	x	x	
Discrete trial training	x			
Exercise			x	x
Extinction				
Functional behavior assessment				
Functional communication training	x			
Modeling		x	x	x
naturalistic intervention		x	x	x
Peer-mediated instruction and intervention		x	x	x
Picture exchange communication system	x			
Pivotal response training	x			
Prompting	x	x	x	x
Reinforcement	x	x	x	x
Scripting		x		
Self-management		x		
Social narratives		x		x
Social skills training		x		x
Structured play groups		x	x	
Task analysis				
Time delay				
Video modeling		x	x	x
Visual supports				

Directions for Future Research

The number of students with ASD being served in public schools is growing and this pattern has highlighted pressing needs in many schools. There exists a wide gap between research and current educational practice for students with ASD (Kasari & Smith, 2013; Wong et al., 2015), with evidence-based practices implemented only rarely in schools. Addressing this problem will require a focused and sustained research initiative focused on (a) intervention development and (b) systems to guide initial and ongoing intervention.

First, with regard to intervention, there is a need for comprehensive intervention packages

Table 14.4 Evidence-based interventions for restricted or repetitive behavior, interests, or activities

	Domain	
Intervention	Repetitive behaviors or stereotypy	Ritualistic behavior
Antecedent-based interventions	x	x
Cognitive behavioral intervention	x	x
Computer-aided instruction		
Differential reinforcement	x	x
Discrete trial training		
Exercise	x	x
Extinction		
Functional behavior assessment	x	x
Functional communication training		
Modeling		
Naturalistic intervention		
Peer-mediated instruction and intervention		
Picture exchange communication system		
Pivotal response training		
Prompting	x	
Reinforcement	x	x
Scripting		x
Self-management	x	x
Social narratives		
Social skills training		
Structured play groups		
Task analysis		
Time delay	x	x
Video modeling		
Visual supports		

with documented efficacy and effectiveness in public schools. A comprehensive, school-based intervention would be beneficial as it would provide educators with an evidence-based means of assessing a student's skills and current levels of performance and then using that information to identify appropriate intervention strategies. Research in this area must focus not simply on the development of a comprehensive intervention model, but also on ensuring that it can feasibly be implemented in schools that vary greatly with regard to access to resources and expertise.

Of course, and as highlighted in this chapter, there is an equally pressing need for a model to guide implementation of supports for students with ASD. This framework would delineate mechanisms for building staff capacity, conducting assessments (determining eligibility, progress monitoring, and summative evaluation), and implementing effective intervention. Research evaluating such a school-based model should not simply explore efficacy but also effectiveness across a range of settings (e.g., rural schools, urban schools) and with varying amounts of resources available.

Table 14.5 Evidence-based interventions for commonly occurring difficulties associated with autism spectrum disorder

	Domain			
Intervention	Difficulty with schedules or routines	Difficulty completing academic tasks	Difficulties in skill acquisition or maintenance	Challenging behavior
Antecedent-based interventions	x	x		x
Cognitive behavioral intervention				
Computer-aided instruction	x	x	x	
Differential reinforcement	x	x		x
Discrete trial training	x			
Exercise				x
Extinction				x
Functional behavior assessment				x
Functional communication training				x
Modeling	x			
Naturalistic intervention	x			
Peer-mediated instruction and intervention				
Picture exchange communication system				
Pivotal response training				
Prompting	x	x	x	x
Reinforcement	x	x	x	x
Scripting	x	x		
Self-management	x			x
Social narratives	x			
Social skills training				
Structured play groups				
Task analysis	x	x	x	x
Time delay				x
Video modeling	x			
Visual supports	x	x	x	

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Bullying and Cyberbullying Among Rural Youth

15

Robin Kowalski, Gary W. Giumetti, and Susan P. Limber

For some time, bullying was virtually synonymous with childhood, with some viewing bullying as simply a rite of passage that youth must invariably endure. Since the shootings at Columbine High School, however, researchers have devoted increased attention to the topic of bullying, with almost 5000 articles, books, and book chapters published on the topic as listed just in PsycINFO. Additionally, post-Columbine, 49 states have passed legislation detailing school policies related to bullying (U.S. Department of Education, 2011). With the advent of cyberbullying in the last 10 years, bullying has adopted a new facade that is both similar to and different from traditional bullying (Kowalski, Limber, & Agatston, 2012; Kowalski, Giumetti, Schroeder, & Lattanner, 2014; Madden, Lenhart, Duggan, Cortesi, & Gasser, 2013).

Importantly, however, much of the research on both traditional bullying and cyberbullying has been conducted using samples in urban and suburban areas to the virtual exclusion of rural populations. Very few researchers have discussed how bullying among individuals in urban areas compares with bullying among individuals in nonurban areas. Within the United States alone, rural areas contain approximately 19% of the population ("2010 Census," 2010). Rural and urban areas differ from one another along a number of important variables including economic growth, unemployment, socioeconomic status, liberalism/conservatism, and poverty rates (Bishop & Casida, 2011; Dulmus, Sowers, & Theriot, 2006). Because of these features, not only might prevalence rates of involvement in bullying differ between urban and rural areas, but also prevention and intervention strategies may differ somewhat. Thus, the current chapter examines what we know about both traditional bullying and cyberbullying in both urban and rural areas.

Defining Bullying

Bullying has been defined as an aggressive behavior that is intentional, that is typically repeated over time, and that occurs between individuals whose relationship is characterized by a power imbalance (Olweus, 1993, 2013; Olweus & Limber, 2010). Depending on the type of

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bullying being discussed, this power imbalance can take a number of different forms including differences in physical size, strength, social prowess, numbers, abilities, or technological expertise, among others (Dooley, Pyżalski, & Cross, 2009; Kowalski, Giumetti et al., 2014; Olweus, 2013). Traditional forms of bullying can be either direct (e.g., hitting, kicking, property damage, name-calling) or indirect (e.g., rumor-spreading, excluding others from groups or activities, manipulating relationships; Kowalski, Limber et al., 2012; Thomlison, Thomlison, Sowers, Theriot, & Dulmus, 2004).

Cyberbullying is broadly defined as bullying that occurs through the use of technology via instant messaging, chat rooms, websites, online games, e-mail, social networking sites, or through digital images or messages sent to a cellular phone (Kowalski, Limber et al., 2012). In spite of agreement among researchers with this general definition of cyberbullying, however, there remains disagreement regarding the specific parameters by which cyberbullying should be identified (Kowalski, Giumetti et al., 2014; Olweus, 2013; Smith, del Barrio, & Tokunaga, 2012; Ybarra, Boyd, Korchmaros, & Oppenheim, 2012). The fact that researchers are using even slightly different definitions of cyberbullying (e.g., some using general definitions, others using specific venues by which cyberbullying might occur) has implications for the ways in which cyberbullying is measured, which, in turn, has implications for the prevalence rates that are reported.

It is tempting, when examining definitions of traditional bullying and cyberbullying, to think of them as two sides of the same coin. In keeping with this, research has shown moderate correlations between involvement in the two types of bullying (e.g., Gradinger, Strohmeier, & Spiel, 2009; Kowalski, Morgan, & Limber, 2012; Smith et al., 2008). While it is true that the two types of bullying share in common the three distinguishing features of the Olweus (1993) definition of bullying (i.e., acts of aggression that are typically repeated over time and that occur when there is a power imbalance between the individuals involved), traditional bullying and cyberbullying also differ from one another in several ways. Although these differences are summarized at length elsewhere (see, for example, Kowalski, Giumetti et al., 2014), three key differences will be noted here. First, compared to traditional bullying, perpetrators of cyberbullying often hide behind a veil of anonymity (Kowalski, Limber et al., 2012). Although they are never as anonymous as they think they are, perpetrators, believing themselves to be anonymous, may say things online that they would never say in someone's physical presence. Indeed, the very nature of some of today's technologies facilitates this sense of anonymity (e.g., snapchat). Second, most traditional bullying occurs at school during the school day (Nansel et al., 2001). Cyberbullying, on the other hand, can occur any time of the day or night. Even if targets choose not to check their e-mail or access their text messages, this does not mean that messages are not being left. Third, the punitive fears attached to reporting the two types of bullying differ. Targets of any type of bullying show a strong resistance to reporting their victimization (Harris, Petrie, & Willoughby, 2002; Naylor, Cowie, & del Rey, 2001). However, whereas victims of traditional bullying infrequently tell because they fear further victimization by the perpetrator, victims of cyberbullying report that they do not tell because of fears that their technology will be taken away (Kowalski, Limber et al., 2012).

Prevalence Rates of Bullying and Cyberbullying in Rural and Urban Samples

Examining prevalence rates of any form of bullying is often difficult because of differences across studies in the definitions used to conceptualize bullying and, thus, the manner in which bullying is operationalized. Prevalence rates also vary depending on whose perspective is being assessed. Students often report greater prevalence rates of bullying than either teachers or parents (Stockdale, Hangaduambo, Duys, Larson, & Sarvela, 2002). Furthermore, when considering urban/rural distinctions in regard to bullying,

definitional issues again enter in as studies differ in how they define rural (Kulig, Hall, & Kalischuk, 2008). As will be seen, the end result is that prevalence rates are highly variable across studies.

A comparison of some of the key studies of traditional bullying (Limber, Olweus, & Luxenberg, 2013; Nansel et al., 2001; Robers, Kemp, & Truman, 2013) shows that prevalence rates of victimization range from a low of 9% (Olweus, 1993) to a high of 28% (Robers et al., 2013). Similarly, rates of perpetrating bullying range from 9% (Olweus, 1993) to 19% (Nansel et al., 2001). Importantly, however, the samples used in the different studies varied greatly in terms of the ages sampled, the time parameters used (e.g., last couple of months; year), frequency of bullying (e.g., once versus repeated), and the countries in which the data were collected.

Robers et al. (2013) observed that prevalence rates of traditional bullying varied as a function of the urban/rural nature of the sample. Specifically, they found lower rates of being bullied at school in urban areas (25%) than in rural (30%) or suburban (29%) areas. Similarly, Dulmus, Theriot, Sowers, and Blackburn (2004) found very high rates of bullying in three rural areas in Appalachia among youth in third through eighth grade, with 82.3% of the youth responding that they were victims of bullying at least once in the previous 3 months (see also Stockdale et al., 2002). Two years later, Dulmus et al. (2006), in a comparison of victims and bully/victims among elementary and middle school students in Appalachia, observed that 43% reported being a victim of bullying at least 2–3 times a month, with 11.5% being labeled as bully/victims. A similar study in 2005, also conducted with students in rural schools in Appalachia, found that 21.9% of the students reported being victims of traditional bullying at least 2–3 times a month during the past 3 months. Importantly, another 22.9% met victimization criteria established by the researchers, but did not personally identify themselves as victims (Theriot, Dulmus, Sowers, & Johnson, 2005). It is important to note that, among these studies, different frequency criteria were used to assess whether bullying had occurred, likely accounting for some of the observed variability in prevalence rates. Nevertheless, given the variability in prevalence rates of bullying across these three studies with students in Appalachia in as many years, it is hardly surprising that such great variability is also observed when comparing rural and urban samples.

Still other studies have reported prevalence rates of involvement in bullying in rural areas that are lower than data reported by those focused on urban samples. For example, Mlisa, Ward, Flisher, and Lombard (2008), in a sample of 1565 rural South African eleventh graders, found that 16.5% reported being victims of bullying, 3.9% reported perpetrating traditional bullying, and 5.5% reported being bully/victims. Similarly, Pellegrini, Bartini, and Brooks (1999) found, in a rural sample of fifth graders in the US, that 18% reported being victims of bullying, 14% reported perpetrating bullying, and 5% being bully/victims. Additionally, Klein and Cornell (2010) found that urbanicity (i.e., a measure of the number of people per square mile in the school zone) was positively related to teacher perceptions of bullying victimization, meaning that the more urban the school setting was, the higher the rate of bullying victimization reported by teachers in this study.

Finally, additional studies have found few differences in prevalence rates of bullying between urban and rural areas. Estell, Farmer, and Cairns (2007) concluded that there were few differences between perpetration and victimization rates in their rural sample compared to published findings with more urban samples. Specifically, they found that, among rural minority youth, 13.4% were victims, 11.7% were perpetrators, and 3.6% were bully/victims. Similar results were observed by Laeheem, Kuning, McNeil, and Besag (2009), who also found that prevalence rates did not differ as a result of rural vs. urban context.

Importantly, however, variables other than rural/urban status differentiate many of these studies, including the culture in which the data are collected. The data collected by Dulmus et al. (2004, 2006) were collected in the United States, whereas the data collected by Laeheem et al.

(2009) were collected in Thailand. Additionally, some researchers have suggested that prevalence rates of bullying in rural areas may be underreported because of the close relationships among the individuals and families of the victims and perpetrators. For example, MacIntosh (2005) noted that prevalence rates of workplace bullying, in particular, may be underreported because employers (i.e., perpetrators) may also be neighbors of the victims. Finally, whether researchers concluded that rates in rural areas were greater than, less than, or equal to prevalence rates in urban areas depended on the urban samples they were using for comparison.

Prevalence rates of cyberbullying are highly variable across studies due to a number of different variables including how cyberbullying is defined, if it is defined at all, the ages of the participants sampled, the time parameter assessed (e.g., previous 2 months, 6 months, 1 year, lifetime), and the venue being assessed (e.g., chat rooms, e-mail, social networking sites) to name a few. For example, a survey of 655 youth aged 13–18 found that 15% said that they had *ever* been cyberbullied, and another 7% said that they had *ever* cyberbullied others (Cox Communications, 2009). A survey of middle school students' experiences with cyberbullying resulted in data showing that 9% had been victims of cyberbullying *within the last 30 days*, with 17% saying they had been cyberbullied *in their lifetime* (Hinduja & Patchin, 2009). Kowalski and Limber (2007) found that 18% of middle school students had experienced cybervictimization *within the previous 2 months*; another 11% had perpetrated cyberbullying during that same time frame. Importantly, surveys that simply ask about the overall prevalence rate of cyberbullying (e.g., "How often have you been cyberbullied?") yield different prevalence rates than assessments that inquire about the extent to which participants have been cyberbullied via e-mail, instant messaging, chat rooms, text messaging, etc. Although prevalence rates in the published literature are highly variable, they typically range between 10% and 40% (e.g., Lenhart, 2010; O'Brennan, Bradshaw, & Sawyer, 2009; see, however, Aftab, 2011; Juvonen & Gross, 2008).

All of these statistics are based on urban or suburban samples. Significantly less attention has been focused on prevalence rates of cyberbullying among rural populations (see, however, Bauman, 2010; Navarro, Serna, Martínez, & Ruiz-Oliva, 2013; Price, Chin, Higa-McMillan, Kim, & Christopher Frueh, 2013), and even fewer studies have directly compared cyberbullying as it occurs in rural and urban samples. Among those studies that did include rural samples, prevalence rates are, again, highly variable across studies. In the majority of published studies, prevalence rates of cyberbullying in rural areas are lower than those reported by individuals living in urban areas. For example, Bauman (2010) observed that, among individuals in rural areas, 1.5% were classified as cyberbullies only, 3% as cybervictims only, and 8.6% as cyber bully/victims. Similarly, Price et al. (2013), in an examination of involvement in cyberbullying among sixth- and seventh-grade students in a rural school in Hawaii, found that 7% reported being victims of cyberbullying and 4% reported perpetrating cyberbullying (see, however, Navarro et al., 2013). These prevalence rates are markedly lower than those reported in research using data collected with non-rural samples. Perhaps, individuals in rural areas may have less access to technology than those in urban areas. Given that time spent online is correlated with involvement in cyberbullying (e.g., see Navarro et al., 2013), one would then expect prevalence rates of cyberbullying to be lower in rural samples. However, in their nationally representative study of 12–18 year olds, Robers et al. (2013) observed that students in urban areas reported lower cyberbullying than students in suburban areas (7% vs. 10%, respectively), but did not find significant differences among students from rural communities. Because so few studies have examined prevalence rates of cyberbullying in rural samples, drawing firm conclusions regarding comparisons between urban and rural samples would be premature. Alternatively, even with equal amounts of technology use, perhaps individuals in rural areas are spending their time online engaged in activities that are less conducive to cyberbullying behavior (e.g., spending

less time on social media sites). More research attention is clearly needed to examine amounts and forms of technology use in rural populations.

Characteristics of Victims and Perpetrators in Rural and Urban Populations

A number of variables have been linked with a greater likelihood of being a victim or perpetrator of bullying. These factors can be grouped into personal characteristics (such as anxiety or moral disengagement), family characteristics (such as SES or parental monitoring), and community/school characteristics.

Victims of Traditional Bullying

Victims of traditional bullying have typically been classified as either "passive" victims or as "provocative" victims (Kowalski, Limber et al., 2012). Although anyone can be a victim of bullying, passive bullying victims do seem to share particular traits in common including being quiet, sensitive, insecure, socially isolated, anxious, and depressed (Cook, Williams, Guerra, Kim, & Sadek, 2010; Olweus, 1993). Children who are bullied are also more likely than children not involved in bullying to experience psychosomatic complaints, such as headaches, backaches, stomach pain, sleeping problems, and poor appetites (Gini & Pozzoli, 2009). Importantly, however, it is difficult to determine whether some of these characteristics, such as anxiety and depression, are antecedents of bullying victimization, consequences of it, or both (see, however, Cluver, Bowes, & Gardner, 2010).

Provocative victims (also known as bully/victims), on the other hand, tend to be hyperactive (Kumpulainen & Raasnen, 2000) and have trouble concentrating (Olweus, 1993). They are often impulsive and quick-tempered, leading them to react quickly to perceived slights by others. They tend to exhibit internalizing problems (such as anxiety and reduced self-esteem) similar to those of other children who have been bullied, but also externalizing problems associated with children who bully others.

D'Esposito, Blake, and Riccio (2011) examined a sample of 243 sixth- through eighth-grade students from the rural southwestern U.S. and found that greater victimization was linked with higher levels of anxiety, more depressive symptoms, and lower levels of self-esteem. Estell et al. (2007) also found that victims tend to be less popular and more socially rejected. Dulmus et al. (2004) found that victims may have fewer friends than those who have not been bullied.

While being more anxious, having lower self-esteem, and being socially isolated are related to (and may predispose a student to) victimization, having parental support may serve to reduce the likelihood of victimization. Conners-Burrow, Johnson, Whiteside-Mansell, McKelvey, and Gargus (2009) studied 977 middle school and high school students from the rural south and found that students who were not involved with bullying had higher levels of social support from their parents and teachers than perpetrators and bully/victims.

Still another characteristic that may predispose someone to becoming a victim of bullying is having a disability. A study by Farmer et al. (2012) examined 1389 students from rural school districts across the U.S. and found that disabled children receiving special education services were several times more likely than nondisabled children to be victims or bully/victims. Similar findings have been observed for children with disabilities in more urban samples (see, for example, Kowalski & Fedina, 2011).

One final personal characteristic that has been found to be predictive of involvement as a victim is racial group. A study by Goldweber, Waasdorp, and Bradshaw (2013) found that African American youth were more likely to be targeted, regardless of whether they were from an urban or non-urban location. However, others have pointed out that variables such as ethnic density and diversity within a school building may be more informative than prevalence rates by ethnic group (Wang, 2013).

In terms of family variables, youth report a higher level of victimization if their parents are

overprotective (Smokowski & Kopasz, 2005) and if there is a history of domestic violence and child neglect (Bowes et al., 2009; Cluver et al., 2010; Kowalski, Limber et al., 2012).

Additionally, going to school in a community in which students transition to a new school in the middle grades may be another factor that can lessen the likelihood of bullying and victimization (Farmer, Hamm, Leung, Lambert, & Gravelle, 2011). Specifically, Farmer et al. (2011) found that schools with a transition between fifth and sixth grade in which students changed buildings had fewer children who bullied compared to schools that did not have a transition. Further, the social forces in schools with a transition appeared to be less supportive of bullying than schools that did not have such a transition.

Perpetrators of Traditional Bullying

Perpetrators of traditional bullying have been described as often having a positive view of violence, feeling a need to control others in a negative way, showing little empathy for those who are bullied, being aggressive with peers and adults, having friends who bully others, and (among boys) being physically stronger than their peers (Federal Partners in Bullying Prevention, n.d.; Olweus, 1993). Research indicates that these children and youth are also more likely than their peers to display a variety of other antisocial, violent, or troubling behaviors, such as fighting, stealing, vandalizing property, carrying weapons, and dropping out of school, in addition to having school adjustment difficulties and poor academic achievement (Byrne, 1994; Gini & Pozzoli, 2009; Haynie et al., 2001; Nansel et al., 2001 ; Olweus, 1993). For example, children who bully are more likely than others to drink alcohol and smoke (Nansel et al., 2001; Olweus, 1993) and own a gun for risky reasons, such as to gain respect or to frighten others (Cunningham, Henggeler, Limber, Melton, & Nation, 2000).

In a traditional bullying context, several research studies have been conducted in rural settings that identify personal and family characteristics associated with being a perpetrator of bullying. For example, Burton, Florell, and Gore (2013) examined 851 middle school students from six rural schools in the U.S. and found that the personal characteristics of proactive and reactive aggression tended to be higher among bully/victims than among perpetrators or those not involved in the bullying incident (see also Jansen, Veenstra, Ormel, Verhulst, & Reijneveld, 2011). Aggression was also found to be higher among perpetrators than victims or non-involved students in a sample of African American rural middle school students (Estell et al., 2007), and perpetrators were more often viewed as the group leaders than students in the other groups. In rural samples, perpetrators of bullying have also been identified as lacking empathy. Out of a sample of 192 rural K-8 students from the southeastern U.S., Rowe, Theriot, Sowers, and Dulmus (2004) found no differences in involvement as a function of age or gender, but did find that perpetrators tended to have lower empathy and a reduced willingness to help when another student was being bullied (see also Dulmus et al., 2006).

Certain family characteristics have also been associated with a higher likelihood of involvement in bullying behavior, including coming from a lower SES group (Jansen et al., 2011) and presence of family physical abuse (Limber, Kowalski, & Agatston, 2008). However, other studies have not found a role for family variables in predicting involvement in bullying behavior, including a study by Mlisa et al. (2008). In this study, the authors examined the following family variables: poor family management, a family history of antisocial behavior, and not living with both parents. No significant differences emerged among perpetrators, victims, and bully/victims on any of these variables. This study was conducted in rural South Africa, so the sample may be different than rural populations from the U.S. or other parts of the world.

Few studies have directly compared rural and urban settings, and much of the research examining predictors of bullying victimization and perpetration has focused on bullying in urban or suburban samples (e.g., Camodeca, Goossens, Meerum Terwogt, & Schuengel, 2002; Jolliffe & Farrington, 2011; Veenstra et al., 2005). Therefore, it is difficult to make firm conclusions about the unique personal and familial characteristics of perpetrators and victims in rural areas that might predispose them to becoming a perpetrator or victim, relative to those in urban samples. For example, whereas the effects of age and gender on involvement in both traditional bullying and cyberbullying have been found to be highly variable across studies conducted with urban samples, not enough research has been implemented using rural samples examining these variables to even make comparisons. Further research seems to be needed to more directly compare the characteristics of perpetrators and victims in rural and urban settings.

Cyberbullying Victimization

Given that cyberbullying has several unique features compared to traditional face-to-face bullying (e.g., it is communicated through technology, and there may be a greater perceived anonymity, a lack of reactivity, and easy reproducibility), a different set of predictors may be associated with involvement in cyberbullying. Among urban samples, victimization is inversely related to social intelligence (Hunt, Peters, & Rapee, 2012) and directly related to hyperactivity (Dooley, Shaw, & Cross, 2012). Victims of cyberbullying also engage in riskier online behavior than individuals not involved with cyberbullying (Görzig & Ólafsson, 2013) and have a higher level of exposure to violent video games (Lam, Cheng, & Liu, 2013). Psychologically, victims of cyberbullying demonstrate higher levels of depression, anxiety, and suicidal ideation, as well as lower levels of self-esteem compared to those not involved with cyberbullying (Hinduja & Patchin, 2008; Kowalski & Limber, 2013; Kowalski, Giumetti et al., 2014; Ybarra & Mitchell, 2004).

Cyberbullying Perpetration

Cyberbullying perpetrators, similarly, report higher levels of depression and anxiety relative to individuals not involved with cyberbullying (Didden et al., 2009; Ybarra & Mitchell, 2004). Additionally, they show lower empathy (Ang & Goh, 2010) and higher levels of narcissism (Ang, Tan, & Mansor, 2011; Fanti, Demetriou, & Hawa, 2012). Similar to victims of cyberbullying, perpetrators also report higher levels of depression and anxiety and lower levels of self-esteem (Kowalski, Limber et al., 2012).

In a 2010 study, Bauman focused on a rural sample of 221 fifth- through eighth-grade students in Arizona and found that higher levels of cyberbullying perpetration and victimization were related to greater involvement in risky online behaviors and more frequent use of technology. So it would seem that simply being online more often may be associated with a greater likelihood of involvement in cyberbullying. Indeed, this finding was confirmed in a Spanish rural setting (Navarro et al., 2013). While being online might be a risk factor for involvement in cyberbullying, there may be several features that can mitigate this risk. These include monitoring software installed on the computer and joint creation of rules with parents regarding the time spent online—each can help to lessen the likelihood of cyberbullying victimization (Navarro et al., 2013).

Consequences of Bullying and Cyberbullying in Rural and Urban Populations

Research in urban and suburban settings has consistently shown the adverse effects of involvement in bullying for both victims and perpetrators, with traditional and electronic bully/victims showing the most negative physical and psychological effects (e.g., Henry et al., 2013; Mishna, Cook, Gadalla, Daciuk, & Solomon, 2010; Schneider, O'Donnell, Stueve, & Coulter, 2012). These consequences of bullying (whether face-to-face or cyber) are quite varied, ranging from

hurt feelings and decreased life satisfaction to poorer grades in school and behavioral conduct problems to drug and alcohol use, depression, and suicidal ideation (Kowalski & Limber, 2013; Kowalski, Limber et al., 2012; Kowalski, Giumetti et al., 2014). Bullying others has also been found to be associated with delinquency, violence, and aggression later in life (Bender & Lösel, 2011; Olweus, 1993; but see Wolke, Copeland, Angold, & Costello, 2013).

Significantly less research has examined the consequences of bullying in rural settings. However, among those studies that have been conducted in rural settings, several have found that victims or bully/victims are more likely to have poor grades in school (Bradshaw, Waasdorp, Goldweber, & Johnson, 2013), be more anxious and depressed (Conners-Burrow et al., 2009; Crosby, Oehler, & Capaccioli, 2010; D'Esposito et al., 2011; Price et al., 2013), have greater psychological difficulties (Duncan, 1999), have greater internalizing and externalizing problems (Farmer et al., 2012), and be more likely to use alcohol and marijuana than non-victims (Wiens, Haden, Dean, & Sivinski, 2010). Additionally, Hay and Meldrum (2010) found that victims of traditional bullying and cyberbullying were more likely to engage in self-harm and suicidal ideation than those not victimized.

As with research on characteristics of children who bully and children who are bullied, few studies have directly compared rural settings to urban settings and examined the possible differences in outcomes among individuals from these settings. Therefore, additional research may be needed that more directly compares rural and urban settings to determine whether the outcomes or sequelae associated with bullying and cyberbullying differ in these contexts.

Prevention and Intervention

Substantial numbers of students indicate that they do not report their victimization to others, particularly to adults at school (Limber et al., 2013). Children's reluctance to report bullying experiences to school staff may reflect a lack of confidence in their teachers' (and other school authorities') handling of bullying incidents and reports. For example, in a survey of high school students in the U.S., two thirds of those who had been bullied believed that school personnel responded poorly to bullying incidents at school, and only 6% felt that school staff handled these problems very well (Hoover, Oliver, & Hazler, 1992). Limber et al. (2013) observed that more than 40% of middle school students and more than 50% of high school students felt that their teachers had done "little or nothing" or "fairly little" to reduce bullying. This may stem, in part, from the perceptions of some adults that bullying is developmentally normative and does not require intervention (Shoko, 2012).

It may also stem from a failure on the part of adults to accurately recognize bullying when it occurs. In a study by Craig and Pepler (1997), bullying episodes on the playground were videotaped. When asked how often they intervened, teachers reported that they intervened in 70% of the bullying episodes, when, in fact, they had intervened in only 4% of the bullying episodes. Thomlison et al. (2004) surveyed teachers, staff, and administrators about their knowledge of bullying that occurred at their schools during the previous 3 months. Sixty-two percent of the teachers and administrators and half of the school staff reported that adults at the school "almost always" intervened to put an end to the bullying. Students at the school, however, might well have given a different perspective had they been asked. Clearly, more needs to be done in the area of prevention and intervention.

The literature on traditional bullying has highlighted the efficacy of a systemic-ecological framework in prevention and intervention efforts (Mishna, 2003), which will be used here as a model for prevention and intervention efforts directed at all types of bullying. This model operates on the premise that bullying, in whatever form it may take, is a behavior that occurs within a larger social context that includes family, school, and community (White, Kowalski, Lyndon, & Valentine, 2000). Thus, prevention and intervention efforts should not focus just on the victim or the perpetrator, but rather on a compilation of

"individual characteristics, social interactions, and ecological and cultural conditions … [that] contribute to social behavioral problems" (Mishna, 2003, p. 340). Toward this end, school climate factors need to be examined, parental involvement must be encouraged, and community-wide efforts at increasing awareness initiated. At the level of the school, a school-wide approach must be adopted whereby everyone including students, teachers, administrators, bus drivers, cafeteria workers, etc. is educated on how to identify and report bullying and cyberbullying (Olweus et al., 2007; Smith & Shu, 2000). Training for teachers can help them to identify peer groups which may be at particularly high risk for bullying (Farmer, Hall, Petrin, Hamm, & Dadisman, 2010). School-wide assessments of the prevalence of bullying need to be conducted (Olweus & Limber, 2010). Not only are these assessments useful in helping school officials and parents recognize the extent of the bullying problem, but they also allow school officials to provide more targeted instructional attention (Olweus et al., 2007; Rose, Espelage, & Monda-Amaya, 2009). If, for example, sixth-grade girls are more likely to engage in bullying or cyberbullying than sixth-grade boys, this would be important to assess within a particular school. Another best practice in the prevention of bullying (and cyberbullying) involves regular discussions with children and youth about bullying and peer relations (Federal Partners in Bullying Prevention, n.d.). Class discussions can focus on topics such as defining cyberbullying, school rules and policies regarding cyberbullying, online etiquette and safety, monitoring one's online reputation, how to best respond to cyberbullying, and the role of bystanders who witness cyberbullying behavior (Limber, Kowalski, & Agatston, 2009; Limber et al., 2008).

A key aspect of school and community-wide approaches toward bullying prevention is empowering bystanders to provide support for targets of bullying (Davis & Nixon, 2011; Kowalski, Schroeder, & Smith, 2013). Many have suggested recently that bystanders might more appropriately be called "upstanders" to encourage them to "stand up" on behalf of victims as opposed to just "standing by" (e.g., "Bully bust," 2012). Bystanders who do nothing on behalf of the victim appear to both perpetrators and victims to be supporters of the bullying behavior (Olweus, 1993). While understandably, children and youth may not want to get directly involved in a bullying situation, they can offer their support to targets of bullying in other ways (such as being a friend to them or offering sympathy), or they can inform adults of the bullying they have witnessed in the virtual or real worlds.

Youth within schools today face a strong code of silence (Agatston, Kowalski, & Limber, 2007, 2011; Davis & Nixon, 2011; Rigby, 2008). Not only are targets unlikely to report their victimization, but bystanders are equally unlikely to report instances of bullying and cyberbullying of which they become aware. Limber et al. (2013), in an analysis of 20,000 students in third through twelfth grade, found that only 25% of elementary school students, 15% of middle school students, and 12% of high school students believe that other students "often" try to stop bullying that they observe. In a survey of teachers, administrators, and staff by Thomlison et al. (2004), 59% of teachers and administrators and 73% of staff indicated that students had tried to put an end to the bullying "sometimes" or "once in a while." This number, however, declines as students age through middle and high school. To encourage prosocial behavior on the part of bystanders, teachers should be encouraged to engage students in discussions and role-play activities that encourage positive actions on the part of students who witness bullying (Olweus & Alsaker, 1991; Olweus & Kallestad, 2010). These actions may involve speaking out against bullying, seeking help from adults, and including bullied peers in activities.

As Thomlison et al. (2004) note, while training and education of students are key, training and education of parents and school personnel are equally critical. All individuals need to be educated on how to address bullying appropriately and how to work to prevent it from occurring in the future. If students have difficulty determining how to respond appropriately to bullying that is occurring, how much more difficult it must be for bystanders as well as adults to

detect and respond to bullying that may be occurring among those students.

Some training messages and strategies may need to be adjusted depending upon the rural versus urban setting of the school and the viewpoints of staff in these settings. For example, educators in rural and urban settings may have different perceptions about the seriousness of bullying. It is possible that educators native to rural settings, particularly in impoverished areas, may perceive bullying to be more socially acceptable than educators in some urban areas and may view bullying as a necessary means of "toughening kids up" (Shoko, 2012). Research on the negative effects that follow from bullying clearly suggests, however, that this perception is misguided.

One study that highlighted the importance of attending to the values endemic to particular areas focused on perceptions of bullying among sexual minority students (Bishop & Casida, 2011). The authors pointed out that, while sexual minority status places individuals at risk of homophobic bullying in any setting, "students in rural areas with theologically conservative values tend to be at the greatest risk of homophobic retaliation with little to no recourse by the school district" (p. 134). As noted by Bishop and Casida, oftentimes school personnel are uncertain how to respond to bullying that is directed against sexual minority students because of the reactions that may follow from homophobic parents. This research highlights the fact that training in bullying prevention and intervention needs to be sensitive to the views and perceptions of particular audiences.

Conclusion

A clear take-home message from this chapter is that more research is needed that directly compares samples of individuals from urban and non-urban areas. This type of research should lend conceptual clarity to how involvement in both traditional bullying and cyberbullying compares across the two areas. To date, we cannot say conclusively whether rural youth are more or less involved in bullying of any type than urban youth. Although the predictors of involvement in bullying seem to be similar among youth from both rural and urban areas, again we cannot say that with certainty without a more direct comparison. The firm conclusion that can be drawn, however, is that both traditional bullying and cyberbullying are ever present in both rural and urban samples of young people. Comprehensive programs aimed at reducing the prevalence of bullying among all youth are needed.

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Part III

Addressing Challenges in Delivering Rural School Mental Health Services

16 Ruralism and Regionalism: Myths and Misgivings Regarding the Homogeneity of Rural Populations

David S. Hargrove, Lisa Curtin, and Brittany Kirschner

The adjective "rural" is used to describe a kaleidoscope of cultural, economic, geographical, institutional, and demographic patterns. Although many attempts have been made to define what is meant by "rural," enormous differences, even within regions of the same country, characterize rural communities and their people and history. Yet, rural areas are frequently thought to be a monolithic culture and environment, often defined and described simply as a non-urban default. As urbanization dominated demographic trends in the twentieth century, rural environments appeared to be treated as if they had melded together into one non-metropolitan land mass.

It is not surprising, then, that government and social policy would be dominated by urban concerns. During the urbanization of the last century, many people concentrated in metropolitan communities, leaving fewer people in the expansive rural landscapes. Stereotypes of pastoral and protected rural environments, along with the dominance of urban populations, influenced mental health policy and service development in the twentieth century and continue today. But, rural areas have changed and are changing; they are no longer, if they ever were, consistent with many of the earlier stereotypes, resulting in a different perspective of the needs of the people who populate its communities.

In this chapter, we, in part, point out some of the powerful stereotypes of rural communities that have influenced the development of social and health policy in the past century. Second, we demonstrate the enormous diversity among rural environments and its importance in mental health policy and service development. Third, we identify potential processes and structures by which public mental health services may be organized. In an effort to be responsibly responsive to rural public mental health needs, the Community Mental Health Centers Act of 1963 in the United States is revisited as a model for a locally controlled mental health system. Because educational systems are a common institutional presence in rural areas, they provide reasonable and potentially equitable vehicles for thoughtful, context-driven mental health service collaboration and delivery, particularly for children and families. Finally, we recognize some of the realities of the "new" rural that has emerged from the twentieth century.

Stereotypes of Rural Environments

Among the most significant of the stereotypes is that rural areas are all alike. However, there is no commonly held definition of "rural" among

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government agencies or scholars studying the rural environment. Apparently, then, a number of variables and dimensions are considered when attempting to define the rural environment. As a result, the diversity among rural communities is rarely documented or appreciated. For example, a variety of federal agencies in the U.S. employ a range of classification systems to identify rural areas primarily based upon population density. According to the U.S. Census Bureau (2015), all areas that are not classified as Urbanized Areas (50,000 or more people) or Urbanized Clusters (less than 50,000 but more than 2500 people) are rural. The Office of Management and Budget offers a slightly more refined classification of areas, defining regions as Metropolitan, Micropolitan, or neither. Metropolitan areas contain an urban hub of 50,000 or more people, whereas Micropolitan areas contain an urban hub of less than 50,000 but at least 10,000 people. The classification of rural, again, remains a default category (U.S. Department of Health and Human Services, 2015).

The U.S. Department of Agriculture (USDA) uses a dimensional system for classifying areas on a scale from 1 (urban/metropolitan) to 9 (most isolated rural) based on population and proximity to metropolitan areas. The Office of Rural Health Policy, similarly, considers the level of a given community's "rurality" on a continuous basis, classifying individual census tracts using the Rural-Urban Commuting Area (RUCA) codes that consider population density as well as commuting direction and distance to urban hubs (U.S. Department of Health and Human Services, 2015). Similar to the definitions in the U.S., Australia utilizes a variety of classification systems, both categorical and dimensional, to identify rural remote and metropolitan areas with consideration of population density and accessibility to service centers (Australian Institute of Health and Welfare, 2016). Although these systems codify geographical areas, they imply uniformity among rural areas and fail to capture the diversity among rural communities.

Despite a wide range of rural environments, mental health policy historically has either ignored rural needs or lumped rural areas together, as if they are all the same. Stereotypes of rural people and places appear to dominate the development of public mental health care, often rendering service delivery and administration ineffective and irrelevant. Stereotypes include the peaceful, pastoral nature of rural environments; the unchanging characteristic of the rural demography and landscape; the fundamentally agrarian nature of rural economies; and a monolithic perspective among rural areas across the world. Reality does not, however, always cooperate with the idyllic connotations of rural communities. Noted below are examples of the significant diversity among rural environments.

Population Changes

Rural areas are often thought of as constant and stable. Throughout the past few decades, the demographic patterns of rural areas in the United States have changed considerably (Johnson, 2006, 2012). As of 2010, about 15% of the United States population was identified as residing in non-metropolitan areas, a considerably smaller percentage compared to past populations, with significantly less population gain relative to the 1990s (Johnson, 2012; USDA, 2014). Overall, population decreases relate to fewer births and lower migration into rural areas, as well as the out-migration of young adults into urban areas to seek employment. Population changes in rural areas are, however, far from uniform. For example, the majority of rural areas proximal to metropolitan areas and rich in natural amenities and recreational resources (e.g., the mountains and coastal areas of the U.S.) evidenced population growth, although the growth was less than in the 1990s (Johnson, 2012).

On a local level, rural communities are rarely described as ethnically diverse; however, the migration of non-Caucasian minority groups has been responsible for a substantial amount of non-metropolitan population growth since 1990 (Johnson, 2006, 2012). Specifically, as of 2010, 3.8 million inhabitants of rural America were

identified as Hispanic, accounting for approximately 5% of the total rural population. Importantly, twenty-first century rural counties have experienced an overall increase in Hispanic youth (45% gain) and a simultaneous decrease in non-Hispanic White youth (10% decrease). Counties with a majority of minority children are concentrated in the Mississippi Delta, the Rio Grande area, the Southeast, and the Northern Great Plains (Johnson, 2012).

Poverty

Poverty rates in the U.S. consistently have been higher in non-metropolitan compared to metropolitan areas since first recorded in the 1960s. Although the economic gap between metropolitan and non-metropolitan has fluctuated across time and improved with growth in the 1990s, non-metropolitan areas of the U.S. have evidenced slower recovery from the 2007–2009 recession compared to urban areas. The poverty gap between non-metropolitan and metropolitan appears to be widening; the 2011 poverty rate in non-metropolitan areas increased 1.6% points from 2010, whereas the metropolitan area poverty rate decreased slightly (USDA, 2014).

Similar to general poverty levels, U.S. rural child poverty rates are reliably higher than urban child poverty rates, affecting one fourth of rural children in 2014 (USDA, 2015). Poverty among children is recognized as an important gauge of short- and long-term outcomes in physical health, language and cognitive development, academic achievement, and educational attainment, as well as mental, emotional, and behavioral health (Yoshikawa, Aber, & Beardslee, 2012). Childhood poverty is also associated with increased morbidity and decreased life span in adulthood (Blane, Bartley, & Davey-Smith, 1997; Lawlor, Ronalds, Macintyre, Clark, & Leon, 2006).

Although not unique to rural children, cognitive abilities and subsequent school achievement outcomes differ between poor and non-poor children (Brooks-Gunn & Duncan, 1997). Impoverished children are significantly more likely to experience both learning disabilities and developmental delays than non-poor children (Brooks-Gunn & Duncan, 1997; Emerson, 2007). Relatedly, economically disadvantaged children are more likely to drop out of school, repeat grades, and demonstrate lower math and reading achievement. Lower academic achievement relates to parental education and family structure, which have a bidirectional relationship with poverty levels (Vernon-Feagans, Burchinal, & Mokrova, 2015).

Impoverished children are also more likely to suffer from emotional and behavioral problems compared to non-impoverished children (Moore, Redd, Burkhauser, Mbwana, & Collins, 2009). Poor children are more likely to experience internalizing and externalizing problems such as aggression, fighting, acting out, anxiety, depression, and social withdrawal (Duncan, Brooks-Gunn, & Klebanov, 1994; Emerson & Hatton, 2007) and report high levels of stress and demonstrate lower levels of stress-regulation (Evans & Kim, 2007). Poverty, then, frequently is found to be a more relevant variable than rurality.

Education

High school graduation rates are similar in rural and urban areas of the U.S. (National Center for Education Statistics, 2013); however, potentially consistent with stereotypes, rural individuals earn fewer degrees and complete fewer years of schooling (Gibbs, 1998; Provasnik et al., 2007) than urban residents. According to the National Center for Education Statistics (2013), persons 25 years and older from urban areas have greater higher education attainment, with 32.9% earning a bachelor's or higher degree compared to 20.8% of rural individuals.

Multiple barriers may contribute to lower educational attainment among rural youth such as greater poverty, lower parental education attainment and expectations, and poorer high school preparation in rural compared to non-rural areas (Roscigno & Crowley, 2001; Roscigno,

Tomaskovic-Devey, & Crowley, 2006). Likewise, a less broad school curriculum and limited access to career counseling and college preparatory programs, which may be more common in rural schools, impact students' decisions to attend college (Graham, 2009; Griffin, Hutchins, & Meece, 2011; Lapan, Tucker, Kim, & Kosciulek, 2003; Monk, 2007; Provasnik et al., 2007). Earlier age of marriage and pregnancy, as well as traditional societal roles (Olgun, Gumus, & Adanacioglu, 2010; Timaeus & Moultrie, 2015), may also relate to lower educational attainment in rural areas.

Economy

Another common rural stereotype is that of a primarily agrarian economy. In the past, agriculture was the main driving force in the rural economy. Farming does dominate the economy of roughly 403 out of 2151 rural counties in the United States, yet only about 6.5% of rural Americans engage in farming. Although small family and individual farms account for the majority of rural farming, corporate farming has decreased employment opportunities and contributed to the increased migration of young adults to urban areas in search of employment opportunities (Johnson, 2012).

Overall, manufacturing has replaced agriculture as the primary market for the rural labor force. In 2003, about 12.4% of rural individuals were employed in manufacturing compared to 8.4% of their urban counterparts. However, recent globalization of manufacturing jobs has diminished employment opportunities for the rural labor force (Johnson, 2006).

Similarly, mining, including oil and gas extraction, has historically been a major employer in rural areas (Johnson, 2006). Mining is still a force in 113 out of 2151 rural counties across the United States (Johnson, 2012), despite negative environmental and psychosocial correlates (National Resources Defense Council, n.d.; Sangaramoorthy et al., 2016). Fracking chemicals and debris released into water systems and air as well as fracking-related earthquakes negatively impact the natural environment in many rural areas. Additionally, oil and gas production have been linked to an amplified risk of health issues such as cancer and birth defects (National Resources Defense Council, n.d.).

Another economic contributor in rural areas is the prison system. A push for private prison-building in rural areas of the U.S. occurred in the 1990s as an attempt to stimulate economic growth (Beale, 1996; Huling, 2002). In 1994, 402 rural counties housed a prison compared to only 135 counties in 1969 (Hooks, Moser, Rotolo, & Lobao, 2004). The outcome research is inconsistent regarding the impact of prisons on rural areas. Some researchers found that prisons created new employment opportunities (Donzinger, 1996) and others suggest that prisons provide only small economic stimulation as they require specialized operation needs that are difficult for rural businesses to sustain (Hooks et al., 2004).

While the majority of rural labor markets have experienced decline over the past century, tourism and retirement opportunities have contributed to economic growth in many rural communities. Rural counties offering recreational and retirement opportunities have grown consistently from the 1970s to the early 2000s, consistent with the corresponding influx of older adults (Johnson, 2006, 2012).

Crime

Perhaps not surprisingly, and somewhat consistent with stereotypes, crime rates are lower in rural compared to urban communities (U.S. Department of Justice, 2011). Rates are often categorized based on types of crime and include violent crimes (e.g., murder, manslaughter, rape) and property crimes (e.g., burglary, larceny, vandalism). Estimates of crime in the U.S. in 2010 suggest that violent crime was substantially higher in urban communities (428.3 per 100,000 inhabitants) compared to rural areas (195.1 per 100,000 inhabitants). The same pattern is seen in property crimes in the U.S. (U.S. Department of Justice, 2011), and comparable rural-urban differences are found in the United Kingdom (Department for Environment, Food,, & Rural Affairs, 2012).

Although reported crime rates appear lower in rural areas relative to urban areas, these rates are likely influenced by community resources as well as interpersonal fears associated with reporting and prosecuting which may be greater in smaller, less anonymous, rural communities (Berg & Lauritsen, 2015; Federal Bureau of Investigation (FBI), 2012). For example, in the U.S., in 2012, rapes known to law enforcement did not differ between non-metropolitan and metropolitan area counties; however, arrests for rape in the U.S. during this same year were almost twice as common in more populated areas compared to less populated areas (FBI, 2012). Limited resources in rural communities may negatively impact police productivity (Weisheit, Falcone, & Well, 1994). Technological infrastructure, potentially compromised in rural relative to urban areas, may contribute to delayed crime reporting and maintaining national crime databases (National Institute of Justice, 2004, 2010).

Impact of Stereotyping Rural Environments

Beliefs that rural environments lack diversity result in the development of mental health policy that is irrelevant for the reality of rural life. The idea that the rural economy is essentially agrarian, for example, limits the economic base on which local mental health services can be developed and sustained. Certainly, some rural areas are grounded in agrarian economy, but many others are not.

The diversity of available mental health professionals in rural areas also influences the nature of the public mental health system. Some rural areas adjacent to or containing resort opportunities may well have an abundance of professional services, whereas small communities that dot the landscape away from those opportunities may not have such professional resources. Public mental health systems that are based on local involvement necessarily will reflect the nature of those communities.

The Reality of Rural Diversity

Definitions of "rural" based on population density and proximity to urban areas fail to capture the fact that rural environments differ substantially from one another. History, immigration patterns, demographic characteristics, sociocultural development, prevailing weather conditions, and economic and political factors forge variable environments that underlie differences. Frequently, ethnic characteristics of a given area explain attitudes toward male roles in families that become important in economically hard times. For example, the eastern European heritage in the Great Plains underlays the tendency toward suicide when farms failed during the farm crisis in the 1980s. Because of the geographical expanse in the Great Plains, even local mental health services were distributed over enormous areas, frequently causing difficulty of access for those who needed them. While the nation's midsection suffered from the farm crisis of the 1980s, the non-agriculturally based rural areas were not hit so hard (Gunderson et al., 1993; Walker & Walker, 1988).

Although most rural areas share some core features (e.g., poverty, relative isolation), there is not a universal rural culture. Relative to mental health services, however, rural areas lack availability of services, accessibility of services, and acceptability of services (Mohatt, Bradley, Adams, & Morris, 2005). Even when mental health services are available, they are often underutilized by rural residents, likely as a result of accessibility to services and acceptability of services (Aisbett, Boyd, Francis, Newnham, & Newnham, 2007). Driving time to mental health services, challenging weather and road conditions, limited public transportation, and lack of insurance or limited insurance may make it difficult to access mental health services even when available. In addition, available and accessible services may not be utilized if perceived as unacceptable or culturally uninformed. For example, social stigma and negative attitudes toward seeking help as well as concerns about confidentiality

in a small community may render accessible support unwelcome (Mohatt et al., 2005).

In the case of mental health services, in rural as well as non-rural areas, it is not enough to merely understand current diagnostic criteria, theories of etiology, and evidence-based practice. Rural areas differ widely in terms of migration history and acculturation, language, religion and spirituality, traditions and beliefs, economy, weather, transportation, community life, and many other factors that constitute the fairly poorly understood and often non-articulated, but critically important, concept of culture. Alarcón (2009) argues for the importance of considering individualized cultural explanations for both the origin and process of "getting ill," noting that investment in understanding the cultural context is necessary for accurate diagnosis and effective intervention.

In order to aid in useful diagnosis and to develop, implement, and responsibly adapt and test evidence-based behavioral interventions, tools must be developed to reflect the inherent diversity of rural communities. The DSM-5 (American Psychiatric Association, 2013) includes a Cultural Formulation Interview (CFI; patient version and informant version), influenced by medical anthropology (e.g., Kleinman, 1988), designed to assess the client's idiosyncratic and culturally informed understanding of presenting problems, coping and resources, and help-seeking that may prove useful to rural mental health services. The intention of the CFI is to help clarify presenting problems, strengthen the therapeutic alliance, and inform psychoeducation and intervention. Evidence to date on the utility of the CFI is limited; however, a pilot study suggests that the CFI facilitates effective communication via rapport-building and facilitation of the client narrative in service of clinical utility and client acceptability (Aggarwal, Desilva, Nicasio, Boiler, & Lewis-Fernández, 2015). The CFI and other culturally informed assessment systems increase the likelihood of interventions that will be less reliant on stereotypes and more effective.

Implications for Mental Health Service Delivery

The differences among rural environments influence the development of accessible and acceptable community mental health services. Policies and procedures that work in some areas are ineffective in others. The first time that these differences were recognized in mental health legislation in the U.S. was in the Community Mental Health Centers (CMHC) Act of 1963. This landmark mental health legislation may represent the zenith of public mental health services in the U.S. The CMHC Act organized a complete system of mental health care in the country that was based on "catchment areas" that include urban, suburban, and rural populations. It also lodged responsibility for the governance of programs in the catchment areas themselves. A balanced responsibility for mental health services that brings together federal, state, and local resources enhances the likelihood of local ownership and the responsiveness of the citizenry. Federal and state standards coordinated with local resources and input more likely insures programming that is consistent with and acceptable to the local population. This act, brainchild of the John F. Kennedy presidency, likely was the first time that rural people were intentionally included in the planning, administration, and delivery of mental health care in the U.S.

Under the CMHC Act, the country was divided into catchment areas that included populations that could not exceed minimum and maximum requirements. These divisions respected state boundaries and were done in collaboration with state authorities for mental health services. The requirement was that the entire state's population was included in the plan and local communities and neighborhoods were given responsibility and authority to develop and maintain mental health care. As a result, some urban areas had several community mental health catchment areas and some rural areas covered large geographical expanses to include the required population base. The authority to govern the programs was given

to each catchment area and they were initially mandated to provide five essential services, including outpatient, inpatient, consultation, partial hospitalization, and 24 h emergency availability. Additionally, CMHCs were required to have four core professions represented on their staffs (i.e., psychiatry, psychiatric nursing, social work, and psychology). Paraprofessional workers were encouraged but not required.

The makeup of the catchment areas presented a variety of challenges for the planning and development of mental health programs in both rural and urban areas. Economic forces, ideological perspectives of government-provided mental health service, political divisions in local neighborhoods and communities, professional alliances, the relationship between some existing state mental health care and local communities, and existing consumer advocacy groups all played into the development of the CMHCs. Several challenges were faced by the rural catchment areas. First, they included vast distances that were involved to reach minimum population requirements. Second, they required community mental health planners and staff to relate to a wide variety of collateral agencies and multiple jurisdictions, frequently with different policies and practices. Third, they frequently involved communities that sustained bitter economic rivalries and histories. Fourth, few rural communities were able to attract qualified professional persons who would meet the requirements of the law.

Nevertheless, the CMHC Act provided rural communities the opportunity to design, within service and staffing constraints, community mental health services that could be responsive to their own needs. It was the opposite of the top-down placement of public mental health services onto the local communities. States have variably responded to the provision of mental health services in their jurisdictions. In some states, community mental health centers have retained the balance of local, state, and federal support through available mechanisms. In others, systems have changed. The important contribution of the CMHC Act of 1963 was its emphasis on the tripartite sources of support and regulation.

Embedded in the CMHC Act was the principle of cooperation among federal, state, and local governments. The Act was initiated at the federal level and required states to have well-documented plans for the development and maintenance of community mental health programs. Local communities, defined by the catchment area specifications, were to have local boards representing the communities of the region, serving to administer service delivery agencies, and providing the connection to local governing boards in cities and counties. The designated state mental health agency had the responsibility of assuring that community boards were appointed and given sufficient authority to carry out the mandate of federal legislation.

Unfortunately, political and professional concerns led to the erosion of the CMHC Act and it never was realized in the way that President Kennedy visualized. The underlying assumption that rural residents were connected to urban hubs and had access to acceptable, available services was not realized (Blank, Fox, Hargrove, & Turner, 1995). Facility-based mental health services, limited in their availability and accessibility, appear not well-suited to the realities of the rural environment. Rather, rural mental health services may be better utilized when integrated into existing organizations such as general healthcare (e.g., primary care, emergency rooms), churches, workplaces, and schools. In addition, increased community capacity to address mental health needs with non-specialists, including paraprofessionals, may help address the availability, accessibility, and acceptability of assistance with mental health and behavioral health problems (Blank et al., 1995).

Separated by more than a decade, the Congressional Office of Technology Assessment report, *Health Care in Rural America* (1990), and the 2003 President's New Freedom Commission on Mental Health similarly revealed significant disparities in access to culturally competent mental health services for residents of rural communities when compared to their urban counterparts. Evaluations of the behavioral health workforce indicate an acute shortage of service to children and families as well as rural communities

(Annapolis Coalition on the Behavioral Workforce, 2004), suggesting the need to expand community capacity as well as strengthen and support a professional workforce. Mental health disparities, especially in areas marked by lower socioeconomic status, are apparent not only in the U.S., but across the globe (Becker & Kleinman, 2013).

Barriers to behavioral health services experienced in rural areas (i.e., availability, accessibility, and acceptability) relate to lower rates of seeking healthcare and adhering to treatment (Mullins & Chaney, 2013). Given school-aged children are legally required to attend school or document equivalent access to education, school-based mental health programs hold great promise for addressing the barriers of availability and accessibility. The potential for decreased stigma-related concerns (e.g., not being seen at a mental health clinic) and culturally responsive programs that question rural stereotypes (Owens, Watabe, & Michael, 2013) increases the potential of effectively serving the behavioral health needs of children and families. Attention, however, must be paid to the potential for conflicts between the core educational mission of the school and the school becoming a de facto mental health service center (Blank et al., 1995). In the case of school-based mental health services, attention to academic retention and performance outcomes will be important to maintain productive partnerships in service of children and families.

Although school-based mental health programs hold great promise for rural communities, adequate funding threatens their potential. A primary goal of the Patient Protection and Affordable Care Act in the U.S. is to expand access to health services, including mental and behavioral health services. One vehicle for expansion of services has been funding of school-based health centers, many of which address and integrate mental and behavioral health services. A combination of federal, state, local, and private funding as well as attention to educational and cost-related outcomes will likely be necessary to develop and sustain locally developed and responsive school-based mental health programs (Cammack, Brandt, Slade, Lever, & Stephan, 2014).

Summary

Rural communities differ widely from one another, as do regions of any given country. Brown and Swanson (2003) quote Daryl Hobbs' description of rural society: "When you've seen *one* rural community, you have seen *one* rural community." There is, however, common impact of the substantial demographic changes that are occurring in rural regions.

Brown and Swanson (2003, p. 400ff) identify three related themes from the work of the authors in their sociological projective of rural American the twenty first century: "Community, civility, devolution," the "importance of community," and "locality-based policy" (pp. 400–401). They write, "Unlike earlier policy remedies, these trends do not carry with them exuberant promises of success. Rather, they represent throwbacks to traditional policy principles, even last ditch efforts, to address seemingly intractable development quandaries by institutionalizing framing principles of the America political economy: democracy, local initiative, civility and tolerance for our neighbors, recognition of the importance and obligations of private property, and the value of community. Institutionalizing foundation values will be more difficult if the current government and educational institutions serving rural America do not actively participate; however, it is difficult to imagine a better starting point for creating and realizing new policy opportunities for rural America" (p. 400).

It appears, then, that the hope of the development of meaningful mental health services in rural environments respects the three themes that Brown and Swanson discern in their work. Respecting the uniqueness of the cultures of local communities, the importance of community itself in the style of life chosen by rural residents and the importance of local control are central to creating and implementing effective services. Although the nature of interaction with state and federal governments consistently tests these principles, the local influence inherent in rural schools provides hope for preventive and responsive mental health services for vulnerable children and families.

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Conjoint Behavioral Consultation in Rural Schools

17

Shannon R. Holmes, Amanda L. Witte, and Susan M. Sheridan

More than 10% of youth experience significant and impairing mental health difficulties each year (Merikangas et al., 2010). In fact, behavioral and emotional difficulties are among the most widespread and chronic problems faced in childhood (Pastor, Reuben, & Duran, 2012). Proportionally, a greater number of children living in rural communities experience these problems than children living in urban settings (Leonardson, Ziller, Lamber, Race, & Yousefian, 2010), hindering their functioning across the key settings in which they develop (i.e., home, school; Achenbach, McConaughy, & Howell, 1987) and making them vulnerable to several negative outcomes later in life (Bradshaw, Schaeffer, Petras, & Ialongo, 2010). Children with emotional and behavioral difficulties are at risk of dropping out of school (Kokko, Tremblay, Lacourse, Nagin, & Vitaro, 2006), engaging in delinquent activity (Fergusson, Horwood, & Ridder, 2005), and having mental health problems that persist into adulthood (Reef, Diamantopoulou, van Meurs, Verhulst, & van der Ende, 2011).

The necessity for interventions to address childhood behavioral and emotional difficulties is obvious; however, the majority of children in need will not receive mental health services (Strein, Hoagwood, & Cohn, 2003). The contextual (e.g., inadequate mental health infrastructure) and cultural (e.g., stigma) characteristics of rural communities make these disparities much more pronounced in geographically remote areas (The President's New Freedom Commission on Mental Health, 2003). To address the mental health concerns in rural communities, there is a clear need for services that utilize natural treatment agents (e.g., parents, teachers) and are provided across the settings in which problems arise (e.g., home, school). Conjoint behavioral consultation (CBC; Sheridan & Kratochwill, 2008 also known as Teachers and Parents as Partners, TAPP; Sheridan, 2014), a family-school partnership intervention, represents a model of service delivery that may address some of the barriers associated with access to services in rural settings. The purpose of this chapter is to describe CBC as an intervention to alleviate rural children's mental health difficulties by (1) describing the empirical support for family-school partnership interventions; (2) explaining challenges

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associated with service delivery in rural schools; and (3) establishing CBC as a method to address the identified barriers. The chapter concludes with a discussion of implementing CBC in rural schools and associated areas for future research.

Family-School Partnerships in Rural Communities

Children's learning and development occur across many settings and contexts. Maximizing the extent to which home and school systems work together on behalf of children can enhance student success. By sending children consistent messages about academic and behavioral values and expectations, parents and teachers can positively impact students' mental and behavioral health. To create optimal developmental conditions and to alleviate mental health concerns, parents and teachers should capitalize on what happens both in school and out of school, and create seamless and mutually supportive connections and continuities across the home and school systems.

Methods to engage families and schools to work together to support children's development and learning have been associated with positive academic (e.g., improvements in standardized test scores and homework completion) and behavioral (e.g., reductions in disruptive behaviors and fewer school-related disciplinary actions) outcomes for children (for review see Fan & Chen, 2001). In fact, families can be involved in their children's education in a variety of ways, ranging from parental engagement practices that emphasize parents' efforts to support what schools do to promote learning to collaborative practices that focus on building positive working relationships between families and schools to address students' academic and behavior difficulties (i.e., family-school partnerships). Parental engagement has been conceptualized as multidimensional construct consisting of six broad categories of activities: parenting (e.g., creating home environments that support student learning and development), communicating (e.g., home-school communication about students' progress and school programs), volunteering (e.g., parents helping at the school), learning at home (e.g., parents helping with homework), decision making (e.g., including families in making school-level and student-level decisions), and collaborating with the community (e.g., being involved in community activities; Epstein, 1995, 2001). Whereas engagement activities emphasize what families and schools do in isolation to support learning and development, family-school partnership models emphasize the bidirectional relationship between families and schools, and intend to enrich student outcomes through coordinated and consistent cross-system supports (Albright & Weissberg, 2010; Downer & Myers, 2010; Lines, Miller, & Arthur-Stanley, 2011).

Documented positive effects for schools are evident when both family-school partnership and parental engagement practices are infused into school policies and procedures. In fact, data from 300 US schools' practices revealed that schools with high-quality family engagement programs had greater numbers of parent volunteers and greater levels of parent participation in school decision-making committees (Sheldon & Van Voorhis, 2004). Moreover, schools with parental engagement programs demonstrate greater levels of student performance and achievement. For example, data analyzed from 113 urban elementary schools serving primarily low-income student bodies uncovered a significant relationship between efforts to build relationships with all families in the school (e.g., through clear communication with families, providing families with information when they are unable to attend school meetings, providing opportunities to volunteer at school) and student scores on the Maryland School Performance Assessment Program standardized tests of reading, writing, language usage, math, science, and social studies (Sheldon, 2003). Furthermore, in an investigation of 47 elementary and secondary schools' family and community involvement practices, it was shown that high-quality home-school connections (e.g., conducting workshops or meetings for parents about school procedures, involving parents and community members to improve school safety and make decisions about

school policies, providing interactive homework assignments) were linked to fewer disciplinary problems (i.e., a lower percentage of students sent to principal's office) and significant decreases in detentions and in-school suspensions (Sheldon & Epstein, 2002).

In addition to the school-level outcomes of family engagement, when families and schools work together, students benefit emotionally, academically, and behaviorally. Using qualitative case study data to evaluate the value of home visits by school social workers, Allen and Tracy (2004) found that students with strong home-school connections simply liked school more. Moreover, various studies have shown that family-school partnership interventions are associated with positive academic outcomes for children, including significant gains in kindergarten students' math and reading achievement (Galindo & Sheldon, 2012), fewer grade retentions for preschool and kindergarten students (Miedel & Reynolds, 1999), and a substantially lower likelihood of dropping out of high school (Barnard, 2004). Family-school partnership interventions have also shown to contribute to reductions in children's disruptive behaviors, such as fewer maladaptive emotional outbursts in a small group of students identified with various mental health difficulties (e.g., bipolar disorder, attention-deficit hyperactivity disorder, oppositional defiant disorder, depression, autism spectrum disorder; Pearce, 2009), and significant decreases in elementary and middle school students' (117 kindergarten through sixth grade) attention-deficit hyperactivity disorder (ADHD) symptoms (Owens, Murphy, Richerson, Girio, & Himawan, 2008).

Findings are consistent. Quality connections between families and schools result in positive outcomes for students regardless of ethnicity, language, disability status, and socioeconomic status (SES). In fact, family-school partnerships are especially important in rural schools. Individual studies focused on rural schools highlight the benefits of family-school partnerships in these communities. In a study of high-performing, high-needs rural schools, supportive relationships with families and communities were among the most important factors associated with school success (Barley & Beesley, 2007). Strong parent involvement was identified as one of the six key components that influence rural school success (Bauch, 2001). In a study of 90 rural African-American youth between the ages of 9 and 12, maternal involvement in children's education was linked directly to academic competence (e.g., reading and math grades) and mediated the relationship between low education and SES and students' self-regulation and academic skills (Brody, Stoneman, & Flor, 1995). Similarly, a longitudinal investigation of 50 rural migrant, primarily Hispanic families revealed that family involvement training resulted in higher language scores relative to students in the control group (i.e., families not participating in the parent involvement training program; St. Clair, Jackson, & Zweiback, 2012). Moreover, in a study examining factors of rural Appalachian students' college enrollment, successful school efforts to involve parents were identified as among most influential factors in students' decisions to attend college (King, 2012).

Rural schools that fail to effectively partner with parents not only risk diminishing their ability to serve students but also risk wasting a valuable and abundant resource—parents. In a study of rural school involvement, Smith, Stern, and Shatrova (2008) found that even though Hispanic parents care about their children's education and want to be involved, they often feel alienated by their rural community schools. The result is schools, already suffering from a lack of resources, underutilize a significant segment of the community that represents a valuable human resource.

Challenges to Delivering Services in Rural Schools

Family-school partnership interventions appear to be promising treatments for rural students with mental health concerns. However, creating quality relationships between families and schools in rural settings is often challenging. Interrelated factors, such as geographic isolation, a lack of family and school resources, and stigma, can make it difficult for families and schools to collaboratively meet rural students' needs.

Isolation and Limited Resources

By definition, rural communities are geographically isolated, creating a unique set of challenges for parents and educators to appropriately address students' mental health difficulties (Johnson & Strange, 2007). Often specialized mental health services are simply unavailable in rural communities. For example, of all the U.S. Department of Health and Human Services' (2011) designated mental health-care shortage areas, 60% are located in rural regions. Moreover, recent school consolidations have increased the distance from homes to schools for many rural families (Phillips, Harper, & Gamble, 2007). In fact, in a study of Florida's rural schools, long distances between home and school, lack of transportation, and limited access to child care were found to reduce parents' involvement in school activities (Weiss & Correa, 1996).

Limited resources in rural communities further complicate issues related to geographic isolation. Rural families are more likely to experience poverty than non-rural families. Nineteen percent of rural school children live in poverty (Afterschool Alliance, 2004) and 31% of rural elementary school students are eligible for free or reduced lunches (Smith & Savage, 2007). Poor rural families—those most in need of mental health and other services—are less likely to own a reliable vehicle than non-poor rural families. Poor rural families who do own a vehicle are constrained by the rises in gasoline prices because they must travel greater distances to access basic needs and have fewer choices in gas stations (Brown & Stommes, 2004).

In rural schools, geographic isolation creates structural challenges, including a lack of professional development opportunities, limited on-site support (Monk, 2007), and limited facilities (Malhoit, 2005). Teacher turnover is high in rural school and as a result these schools are more likely to have a lower than average share of highly trained teachers (Lowe, 2006; Monk, 2007). Specialized school staff, including school psychologists and special educators, tend to work across several districts making them unavailable on a regular basis (Curtis, Hunley, & Grier, 2004; McLeskey, Huebner, & Cummings, 1986). Moreover, rural schools generally lack integrated, systemic methods for addressing students' behavioral and emotional disabilities (Thornton, Hill, & Usinger, 2006). As a result, rural educators are often the only readily available mental health resource, yet they are less equipped to provide mental health services than their non-rural counterparts (Arnold, Newman, Gaddy, & Dean, 2005; Howley & Howley, 2004).

Lack of Privacy and Stigma

Some researchers have speculated that multiple relationships among rural community members and a lack of privacy contribute to the mistrust of rural mental health professionals (Sawyer, Gale, & Lambert, 2006). Rural communities have closely connected professional and social networks, which enable personal information to spread quickly among community members. Individuals considering mental health services for themselves or their children may fear that family members, friends, and colleagues will discover their situation (Larson & Corrigan, 2010). Moreover, rural community members typically have multiple relationships with each other (e.g., serve together on committees, attend the same church) making it difficult to maintain privacy. Even when mental health services are available, rural mental health providers cannot avoid contact with their clients beyond the therapeutic environment (Osborn, 2012), yet individuals seeking mental health services outside the local community in order to preserve privacy face difficulties associated with cost, transportation, and travel time.

The cultural emphasis on self-reliance in rural communities can also discourage individuals from seeking help for mental health difficulties (Osborn, 2012). Stigma, a perceived flaw resulting from a personal characteristic viewed as socially unacceptable (Blaine, 2000), is often associated with the identification of and treatment for mental health needs. Rural communities are particularly susceptible to the negative impact of stigma (Beloin & Peterson, 2000;

Owens, Richerson, Murphy, Jageleweski, & Rossi, 2007). For parents of children with mental and behavioral health concerns, stigma may influence whether or not to pursue treatment for their children if doing so might result in feelings of shame about themselves (e.g., being judged as a bad parent) or shame for their children (Dempster, Wildman, & Keating, 2012). Generally, the lower the degree of stigma perceived by parents the more likely they are to seek mental health treatment for their children (Corrigan, 2004). However, the severity of child symptoms may influence this relationship. There is some evidence to indicate that parents may weigh the perceived stigma of having a child with behavior problems against the perceived stigma of receiving mental health treatment (Dempster et al., 2012). In rural communities, parents must often choose the lesser of two evils—being judged for raising a "difficult" child or being judged for seeking mental health services.

Conjoint Behavioral Consultation

Despite the challenges faced in rural communities, rural school staff tends to be dedicated to partnering with parents, have flexible attitudes about the role of schools, and are prepared to creatively meet the needs of students. Furthermore, rural parents often have a strong work ethic and a commitment to working as a team for mutual benefit (Wright, 2003). In fact, services delivered through formal community sources, such as primary health care or schools, are viewed as more acceptable than specialized mental health services in rural settings (Girio-Herrera, Sarno Owens, & Langberg, 2013). Methods that incorporate rural communities' strengths and are sensitive to challenges faced in rural communities are particularly promising to address students' emotional and behavioral needs. One model that may bypass some of the identified challenges by building on rural parents' and educators' strengths, promoting skill development and collaboration, and using acceptable and convenient meeting places (i.e., home, school) is conjoint behavioral consultation (CBC; Sheridan & Kratochwill, 2008; also known as Teachers and Parents as Partners; TAPP; Sheridan, 2014).

CBC is a structured indirect intervention focused on reducing childhood behavior problems, increasing adaptive skills, and enhancing family-school partnerships to promote continuity and collaboration in support of student functioning across systems. CBC is predicated on Bronfenbrenner's (1986) ecological-developmental theory. The theory posits that the home and school systems (i.e., microsystems) and the relationships between them (i.e., mesosystem) are primary sources of influence on children's development. As such, children's social and behavioral competencies are a function of not only immediate sources and settings, but also of the relationships between those systems.

CBC Features, Objectives, and Stages

Through CBC, parents and teachers, as key partners in educational decision making, actively participate in behavioral intervention planning for children via collaborative home-school interactions. During the CBC process (lasting approximately 8 to 12 weeks) parents and teachers serve as joint consultees and attend meetings facilitated by CBC consultants. Under the guidance of the consultants (i.e., trained specialists), parents and teachers identify, define, analyze, and treat students' social-behavioral problems with the goals of (1) effectively addressing children's behavioral concerns and promoting prosocial skills; (2) supporting consultees' meaningful engagement and participation in children's development; and (3) establishing and strengthening family-school partnerships.

Structurally, CBC is conducted via a four-stage process operationalized by semi-structured conjoint (i.e., parent and teacher) meetings. The CBC stages are *Building on Strengths* (needs identification and analysis), *Planning for Success* (cross-system plan development), *Plan Implementation*, and *Checking and Reconnecting* (plan evaluation). See Table 17.1 for a summary of individual CBC stages and corresponding objectives and Sheridan and Kratochwill (2008)

Table 17.1 Objectives of conjoint behavioral consultation stages

Stage	Objectives
Building on strengths (needs identification/ analysis)	• Determine target behavior for initial intervention
	• Mutually develop achievable goals across home and school
	• Discuss antecedents and consequences of the target behavior, as well as setting patterns, during the identified time and setting
	• Collaboratively establish procedures to collect baseline data across settings
Planning for success (plan development)	• Jointly develop plans at home and school that build on students' strengths and address the target behavior
	• Teach parents and teachers to implement plans
Plan implementation	• Parents and teachers implement interventions
	• Assess immediate changes in student's behavior and make modifications based on student's response
Checking and reconnecting (plan evaluation)	• Determine if the goals have been met
	• Evaluate elements of the plan
	• Discuss continuation, modification, or termination of plan and schedule additional interviews when appropriate

for a detailed description of the model and supplemental materials.

During the first CBC stage, the consultant conducts the *Building on Strength Interview* to (a) discuss family, school, and child strengths; (b) specify behavioral targets and goals; and (c) establish data collection procedures for parents and teachers to use in collaborative problem solving. Target behaviors are operationally defined in a collaborative, mutually agreeable manner. Systematic data collection procedures are used by parents and teachers throughout the CBC process allowing for repeated, functional behavioral information to be available for treatment planning and monitoring. Parents and teachers also note patterns (e.g., common antecedents and consequences, situational events) associated with children's mental and behavioral health. Behavioral data contributed by parents, teachers, and consultants are used by the team to determine the function and patterns of behavior, inform relevant and effective behavioral plan development (determined in the second stage), and guide the team in data-based decision making.

During the second stage, the consultant conducts the *Planning for Success Interview*. In the meeting, the consultant, parent, and teacher (a) review data collected; (b) conduct a functional assessment to determine the functions of the problematic behaviors and setting conditions influencing them; and (c) develop behavioral plans grounded in evidence-based practice and linked to functions and setting conditions. Plans are individualized for each child to include (1) components to address the function of the targeted behavior; (2) a potent reward system; and (3) a procedure for maintaining frequent contact between home and school.

During the plan implementation stage, parents and teachers implement the behavior plan at home and school. Closely monitoring and supporting consistent and accurate implementation of plan protocols is a critical component of this CBC stage. If plan protocols are not implemented with fidelity, the effectiveness of CBC will be compromised. Support for behavioral strategies is integrated into CBC to monitor and support the fidelity with which behavioral plans are implemented by parents and teachers. Specifically, consultants provide in-home and in-classroom support to parents and teachers through direct instruction, modeling, and performance feedback regarding parents' and teachers' use of the intervention strategies. Monitoring fidelity allows consultants to work with parents and teachers to overcome barriers to effective plan implementation and either provide targeted support or training for individual plan strategies, provide motivation for effective implementation, or modify the plan to make it more acceptable.

During the fourth stage of CBC, the consultant conducts the *Checking and Reconnecting Interview* wherein the CBC team reviews and analyzes behavioral data collected by parents and teachers.

Progress toward goals is evaluated in relation to baseline levels of performance. Decisions regarding modifications to the plan are made based on the student's response to the intervention as reflected in the data collected during plan implementation. For children whose goals have not been met, or for whom little to no progress is noted, additional analyses of the behavioral observation and plan fidelity data are performed. Individualized modifications to intervention plans are made until attainment of goals is achieved. For children whose goals have been met, the CBC team may decide to identify new target behaviors or extend intervention plans into other times of the day. Alternatively, the CBC team may decide to continue to implement strategies to maintain the progress already made, or to gradually withdraw the plan and encourage maintenance of effects.

Throughout the entire CBC process, consultants use relationship-building strategies to foster collaboration, mutual decision making, and joint responsibility among the consultation team (Sheridan, Rispoli, & Holmes, 2014). To help develop working relationships between parents and teachers, consultants encourage active participation and cooperation among parents and teachers (e.g., by providing supportive, affirming, and validating statements), demonstrate sensitivity and responsiveness to information shared by consultees (e.g., by working to understand family and school culture), and reinforce consultees' skills and competencies. Consultants ensure that the consultation team communicates effectively by using clear, inclusive language and nonverbal communication to establish a welcoming and supportive atmosphere, share information with consultees that is relevant to the child's development, and establish methods and procedures by which parents and teachers can communicate consistently. Moreover, consultants establish shared responsibility for promoting positive and consistent outcomes related to child development among the team by discussing and defining each team member's role at the outset of consultation, emphasizing the contribution of all participants, and encouraging parents and teachers to share their perceptions throughout the process.

CBC Research Support

Decades of experimental single case, group design, and randomized controlled trial research supports CBC as an efficacious treatment to alleviate children's mental and behavioral health concerns *and* build the capacity for families and schools to collaboratively address these concerns. In a review of family-school and parent consultation interventions, Guli (2005) identified CBC as an evidence-based intervention, which holds promise for ameliorating students' problems. Through the use of single-case methodology, CBC has been found to outperform other consultation interventions, including teacher-only consultation (Sheridan, Kratochwill, & Elliott, 1990) and self-training manuals (Galloway & Sheridan, 1994), in reducing young children's (e.g., prekindergarten through third-grade students) social (e.g., withdrawal and internalizing difficulties) and learning problems (e.g., homework completion and accuracy difficulties). Moreover, in an experimental investigation examining the effect of CBC procedures with kindergarten and first-grade students with ADHD, CBC was also found to be superior to a psychoeducational parent support group with participating teachers reporting significant reductions (ES = 0.84) in students' ADHD and oppositional defiant disorder (ODD) symptoms (Mautone et al., 2012).

CBC has been shown to remediate academic performance deficits (i.e., improvements in homework completion for students at risk of academic failure; Weiner, Sheridan, & Jenson, 1998) and internalizing concerns (i.e., sleep problems; Sheridan & Colton, 1994). Using a noncurrent multiple baseline design, Wilkinson (2005) reported the positive effects of CBC for two students with disruptive behavior concerns. Teachers reported a significant increase (i.e., 64% mean behavioral improvement) in rates of student academic engagement and compliance from baseline to treatment and the positive treatment effects maintained at 4 weeks following the intervention.

A large-scale randomized trial testing the efficacy of CBC for promoting behavioral competence and decreasing problem behaviors of students with behavioral concerns found that, relative to

the "business-as-usual" control group (i.e., students receiving traditional school support or services solicited outside of the school), students who received CBC demonstrated greater increases in teacher-rated adaptive skills (d = 0.39) and social skills (d = 0.42 for parent-reported social skills, d = 0.47 for teacher-reported social skills; Sheridan, Bovaird et al., 2012).

In addition to student outcomes, CBC is associated with improvements in parent-teacher relationships. Pre- to post-test analyses of the parent-teacher relationship revealed that CBC significantly improved parent perceptions of the quality of parent-teacher relationships when used to address various academic (e.g., reading skills, math skills, language skills) and behavioral difficulties (e.g., noncompliance, tantruming, anxiety) in 48 Head Start students (Sheridan, Clarke, Knoche, & Edwards, 2006). In a randomized clinical trial investigating a family-school intervention that included a CBC component for treating 199 students with ADHD, Power et al. (2012) found that when compared to the control group (i.e., parents in a psychoeducational support group), parents and teachers who received CBC reported significant increases in the quality of the family-school relationship (ES = 0.28) three months following participation in the intervention. Similarly, Sheridan, Bovaird et al. (2012) found that teachers who received CBC reported significant improvement in their relationships with parents (d = 0.47). In fact, in that same study, the parent-teacher relationship partially mediated the effect of CBC on children's adaptive and social skills (Sheridan, Bovaird et al., 2012).

CBC in Rural Communities

Our research team recently completed a randomized controlled trial examining the efficacy of CBC specifically in rural communities. Results suggest promising effects of CBC for students with behavioral challenges in rural schools (Sheridan, Witte, Holmes, Coutts et al., 2017). For the 267 kindergarten through third-grade students and their parents and teachers, analyses revealed that rural children who received CBC demonstrated better behavioral outcomes, including significant reductions in teacher reports of school problems (d = 0.45) relative to students who did not participate in CBC, but had access to traditional supports to address their behavior concerns (i.e., business-as-usual control group; Sheridan, Witte, Holmes, Coutts et al., 2017). Classroom observations revealed that relative to the control group, students whose parents and teachers participated in CBC demonstrated gains in on-task (d = 0.43), and appropriate social behavior (d = 0.28), as well as declines in off-task behavior (d = 0.46) and motor movement (d = 0.37) that outpaced their control group counterparts (Sheridan, Witte, Holmes, Coutts et al., 2017).

Rural students' behaviors at home also improved (Sheridan, Witte, Holmes, Wu et al., 2017). Parents reported significant improvements in adaptive (d = 0.22) and social skills (d = 0.56) for students in the CBC group relative to controls. Rural parents' daily reports of their children's behavior revealed decreases in aggressive behavior (d = 0.29), noncompliance (d = 0.33), and temper tantrums (d = 0.34) that significantly outpaced children in the control group.

The preliminary effects appear to extend beyond student outcomes to promote positive changes in the adults responsible for children's well-being (Sheridan, Witte, Holmes, Coutts et al., 2017; Sheridan, Witte, Holmes, Wu et al., 2017). That is, parents and teachers who collaborated via CBC reported greater improvements in their home-school relationship than the parents and teachers in the control group (d = 0.51 and d = 0.46 for parent and teacher reports, respectively). Additionally, CBC parents and teachers reported significant improvements in their ability to engage in structured problem solving to address their children's behavior concerns at a rate that outpaced those in the control group (d = 0.84 and d = 1.05 for parent and teacher reports, respectively; Sheridan, Witte, Holmes, Coutts et al., 2017; Sheridan, Witte, Holmes, Wu et al., 2017). Teachers also demonstrated improvements relative to controls in their self-reported use of appropriate strategies in the classroom (d = 0.69), and observations of their use of positive attention (d = 0.51) and delivery of

tangible consequences ($d = 0.72$; Sheridan, Witte, Holmes et al., 2016). These encouraging findings add to the growing evidence base that CBC is an effective intervention for children, families, and schools across different settings (e.g., rural, urban) and are consistent with previous research (Sheridan, Bovaird et al., 2012) that shows that CBC has a positive effect on children's behavior and relationships between families and schools.

The unique challenges associated with service delivery in rural schools may be partly addressed through the relational and structural features of the CBC process (Sheridan, Holmes, Coutts, & Smith, 2012). That is, relational partnership-building strategies used by CBC consultants, such as frequent communication, constructive problem solving, and mutual input toward shared solutions, may increase trust and alter negative attitudes between families and schools. Structural features, such as teaching parents and teachers to be effective interventionists, improving their use of evidence-based strategies and practices, and facilitating the process in natural meeting places (e.g., home, school), may help to provide rural students with access to consistent and reliable services.

Future Research Directions

Children living in rural communities are uniquely positioned to benefit from mental and behavioral health services through CBC. Determining the most useful methods for delivering CBC in diverse rural communities is necessary to advance the effectiveness of CBC. Certain issues related to the use of outside providers, training, and cost create challenges that need to be considered to uncover techniques for rural schools to successfully implement CBC. As a result, we believe that future investigations should explore at least three lines of research: (1) empirically examine the transportability of CBC in rural schools when the model is taken to scale; (2) discern unique features of rural schools and families that influence the implementation of CBC; and (3) explore alternative methods of delivering CBC services.

For the past several years, our research team has been testing the efficacy of CBC in rural communities. By nature, this type of research has relied on highly controlled and rigorous experimental methods. Despite the evidence supporting the utility of CBC in rural schools, issues related to the resources required to implement CBC will likely create challenges when practitioners within schools attempt to implement the model. Currently no research has examined CBC when it is taken to scale, that is, when CBC is handed over to natural treatment agents (i.e., school personnel) to implement without researcher support. Such research is particularly important in rural settings where accessible and available specialized services are scarce (DeLeon, Wakefield, & Hagglund, 2003). This line of research can empirically determine whether CBC can be adopted and executed with fidelity by rural school staff and infused within existing school cultures and procedures (e.g., pre-referral teams). Further, this line of research allows for investigations into the unique features of rural settings that impact the implementation of CBC. It is likely that contextual and cultural characteristics of rural areas will influence the manner in which CBC is put into practice. Discerning the distinct attributes of rural schools and families will allow researchers to determine the mechanisms through which CBC operates in these settings (i.e., the operative elements of CBC that lead to producing desirable child, parent, and teacher outcomes in rural areas; Sheridan et al., 2014).

Another issue associated with the transportability of CBC concerns the training required for implementation. Previous CBC research has relied on research institution staff, trained in the CBC model, to serve as consultants in rural schools. CBC consultants have knowledge of collaborative problem-solving procedures, functional assessment, evidence-based interventions, and data-based decision making and, as a result, effectively implementing the model requires extensive instruction. CBC consultants working on research projects complete a rigorous, criterion-based training program. Consultants attend didactic training sessions where they receive instruction in building collaborative, partnership-oriented consultation teams; facilitating CBC meetings; supporting intervention

plan delivery; and monitoring student progress. During training, consultants practice CBC skills by completing several role-plays where they receive feedback from veteran consultants and CBC researchers. Continued supervision is provided after consultants complete training and begin casework. However, outside of grant-funded research programs, specialized CBC consultants are often unavailable to rural schools and families. The natural treatment agents who organically reside in rural communities (e.g., teachers, school counselors) hold promise as CBC service providers; however, rural school staff often have multiple roles within the school (e.g., teachers and coaches). To date, little is known about the extent to which school personnel in rural schools can be trained in and implement CBC in a manner that does not overtax the school system's capacity.

Cutting across all the concerns are the costs associated with delivering CBC services. By definition, CBC requires a series of meetings and ongoing interactions between consultants and parents, teachers, and students. As a result, consultants visit students' schools and homes throughout the process to support individual intervention implementation and monitor progress. High costs associated with travel to and from schools and homes in rural areas make implementing CBC in its current form difficult. Alternative methods of service delivery (i.e., in addition to using natural treatment agents), such as tele-health systems, may provide low-cost methods to deliver CBC services in rural communities. However, the utility of such procedures for providing CBC services has not been explored. A worthy line of research would examine the effectiveness, feasibility, and acceptability of using tele-health approaches to implement CBC.

Conclusion

Family-school partnership programs provide well-established methods for remediating social and behavioral problems for children. Cultural traits (e.g., flexible attitudes, commitment to working together) of rural communities make them uniquely positioned to benefit from such services; however, certain contextual (e.g., isolation) and relational (e.g., lack of privacy) characteristics create challenges to delivering services in rural schools. Recent evidence suggests that CBC is effective for addressing the mental health challenges of rural students (Sheridan, Witte, Holmes, Coutts et al., 2017). In fact, particular features of CBC (e.g., partnership-oriented strategies, use of natural treatment agents) may build on the strengths of rural parents and teachers and circumvent some of the issues associated with service delivery in these areas (e.g., lack of resources). Several promising lines for future research in this area can help to further discern the most effective methods for utilizing CBC in rural communities to support the mental and behavioral health of children.

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18 Intergenerational and Familial Influences on Mental Illness in Rural Settings and Their Relevance for School Mental Health

Lisa Curtin, Cameron Massey, and Susan E. Keefe

A literature search of intergenerational patterns of mental illness in rural families within the context of school mental health programs quickly results in an absence of findings. However, familial variables relate to mental illness in multiple, reciprocal, and complex ways. Many models of human development highlight the important role of the family and context in the understanding of behavior (e.g., Bowen, 1978; Bronfenbrenner, 1994). Although significant in any environment, acknowledgement and recognition of familial and contextual variables may be of particular importance in rural communities that have relatively small populations, limited resources, widespread knowledge of personal lives, and are often home to multigenerational families (Curtin & Hargrove, 2010). Further, such models are particularly important to consider when working with children and adolescents in the school system where direct access to family members may be limited.

In this chapter, we first describe Bronfenbrenner's ecological model to frame the importance of the family and other contextual variables in the understanding of child and adolescent mental health problems. We then summarize and evaluate relevant literature. Original findings from a contextual investigation of depression in western North Carolina and from a rural school-based mental health program in this same area are used to illustrate the importance of attention to familial and cultural variables. Finally, we make recommendations based upon current theory and research findings, as well as call for continued research to inform the integration of familial and cultural variables into the development, implementation, and evaluation of rural school-based mental health programs.

Bronfenbrenner's Ecological Model: Implications for School-Based Mental Health

Bronfenbrenner's (1994) ecological model of human development offers a useful conceptualization of the variables that influence individual health and behavior. The ecological model can be used to draw attention to potential strengths and relationships that already exist within a child's environment, which, in turn, can enhance and compliment the use of evidence-based treatments. Bronfenbrenner (1994) proposes that there are

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five systems at play: microsystems, mesosystems, exosystems, macrosystems, and chronosystems. *Microsystems* are most proximal to the individual and oftentimes the most influential. Microsystems include the family, the school, the peer group, and the workplace (for adolescents and adults). The majority of the risk factors for child psychiatric disorder(s) identified by Costello, Keeler, and Angold (2001) in their cross-sectional analysis of over 1000 parent–child pairs in four primarily rural North Carolina counties are consistent with Bronfenbrenner's microsystem variables. They found that a family history of mental illness, poor parenting (e.g., lack of parental warmth, harsh discipline), and residential instability mediated the relationship between poverty and psychopathology in both White and Black children in their sample. School-based intervention programs typically focus on these microsystem variables. For example, therapists address peer conflicts with classmates, behavior in the classroom, and parental stress, if parents are willing and able to participate in treatment.

Mesosystems (Bronfenbrenner, 1994) include the relationships between microsystems (e.g., a child's home and school) and may be particularly important to consider in the context of school-based mental health programs. For example, routine assessment for Attention-Deficit/Hyperactivity Disorder, a service commonly provided in school-based mental health programs, includes reports from both the home environment (e.g., parent reports) and the school environment (e.g., teacher reports). Wang and Sheikh-Khalil's (2013) recent investigation provides another example consistent with Bronfenbrenner's mesosystem. They found that greater parental school involvement predicted decreased risk of depressive symptoms among high school students between their time in the tenth and eleventh grade, suggesting that mesosystems relate to child mental health even during the more developmentally independent high school years. School-based mental health programs often link various mesosystems in a child's life, such as local community mental health agencies, social services, law enforcement, and the school (Michael, Renkert, Wandler, & Stamey, 2009).

Exosystems in Bronfenbrenner's model (Bronfenbrenner, 1994) involve features of the mesosystem or microsystem that influence the child's environment and functioning, but do not directly involve the child. For example, a child's home environment, in which he or she is directly involved, may be affected by a parental job change that requires moving. Regardless of the reason, moving four or more times in the past 5 years has been identified as a risk factor for child psychiatric disorders (Costello et al., 2001), suggesting school-based mental health personnel should routinely assess and understand the exosystems that potentially impact their clients.

Bronfenbrenner's (1994) *macrosystems* incorporate the cultural context (e.g., belief systems, resources, customs) of each of the other more proximal systems. For example, shared cultural beliefs influence individual and familial interpretations of mental illness and affect help-seeking behavior. Our (Keefe & Curtin, 2015) exploration of depression among Appalachian natives revealed culturally informed interpretations of psychological distress as indicative of a spiritual problem rather than a mental health problem, as well as themes of self-reliance and a rejection of external help-seeking.

With better access to the Internet in rural areas and greater influence of social media, it is important to recognize that cultural context and sense of community are no longer strictly place-based. Cross-generational conflicts may be in part due to wider exposure to mainstream (e.g., urban) culture, particularly among children and adolescents. Oftentimes, school-based clinicians, along with parents and students, must balance more traditional cultural norms with broader and increasingly competing norms. For example, youth may be open to seeking mental health services, but family members may be reticent given concerns about confidentiality, family reputation, religious beliefs, and stigma.

Finally, Bronfenbrenner's (1994) *chronosystem* captures the environmental and life transitions that an individual experiences whether directly or indirectly (e.g., historical trauma). For example, considerable scholarship has described the multigenerational impact of massive group trauma experiences such as colonization, slavery, and the Holocaust on ethnic and minority groups

(Abrams, 1999). Importantly, Denham (2008) notes the need to distinguish between historical trauma and the historical trauma response, which may result in empowering multigenerational narratives of resilience and resistance rather than suffering and psychopathology. Many families in rural environments may be affected significantly by events that happened several years in the past. For example, some students report bereavement-related issues in response to emotionally charged dialogue about a death that continues to permeate the family. Although this is not uniquely a rural concern, it is possible that deaths within a smaller community have a larger impact on survivors. Similarly, a historically self-sufficient and kinship-based society, typical of many rural communities, may continue to distrust "outsiders" despite changes in economic and social structure in those same communities.

Familial Variables and Child/Adolescent Mental Health

Approximately 20% of children and adolescents in the United States are estimated to have a mental illness, the majority of whom do not receive services (Kataoka, Zhang, & Wells, 2002; Merikangas, He, Burstein et al., 2010). Many factors likely contribute to high rates of untreated mental illness among children and adolescents, including barriers to the availability, accessibility, and acceptability of services that are intensified in rural communities (Blank, Fox, Hargrove, & Turner, 1995; Mohatt, Bradley, Adams, & Morris, 2005; Penchansky & Thomas, 1981). Although school-based mental health services help address many of these barriers (e.g., increased availability and access), it can be challenging to engage parents and families (Langley, Nadeem, Kataoka, Stein, & Jaycox, 2010; Weist et al., 2014). However, attention to parental and familial variables, even in their possible physical absence, is vital.

Nearly all etiological models of mental illness acknowledge the impact and importance of the family, ranging from genetic influences to environmental influences. Risk may be complex and multigenerational in nature. For example, in their longitudinal examination of three generations, Weissman et al. (2005) found high rates of psychopathology among offspring who had both parents and grandparents with impairing depression. They also found that problematic anxiety appeared a reliable early indicator of future psychopathology. In addition to familial-related vulnerability, family variables such as multigenerational poverty, which is reliably greater in rural U.S. communities (Rainer, 2012), may increase the risk of mental illness among children and adolescents (Satcher, 2000). Indeed, Sameroff, Seifer, and Zax (1982) found that chronic parental mental illness, particularly when combined with low socioeconomic resources, increased risk for negative outcomes for children in their longitudinal analysis. Further, parental mental illness may directly or indirectly affect parenting behaviors that, in turn, increase susceptibility to mental illness among children. For example, depression among mothers (Turney, 2011) and fathers (Wilson & Durbin, 2010) relates reliably to increased use of negative parenting strategies (e.g., criticism, psychological aggression) and decreased use of positive parenting strategies (e.g., warmth). In turn, negative parenting strategies relate to increased risk of depression and anxiety among offspring (Ho, Bluestein, & Jenkins, 2008).

A large body of literature examines family functioning in relation to risk for mental health problems. The Family Environment Scale (Moos & Moos, 1994) is a 90-item self-report measure of the social-environmental perceptions of the family environment. It assesses family relationships (e.g., family cohesion), personal growth (e.g., independence of individual family members), and systems maintenance (e.g., organization/structure in family activities/responsibilities). High levels of reported conflict, low levels of cohesion, and low levels of expressiveness in the context of the family relate to greater risk of mental illness (Nader et al., 2013). The majority of this research is correlational in nature and based upon retrospective self-reports, calling into question whether family functioning increases mental illness risk or if having a family member with a mental illness alters family functioning (e.g., increases family conflict).

Lucey and Lam (2012) found that perceptions of family conflict, as well as low family cohesion, dependence, and organization predicted suicide risk among a sample of adolescent outpatients (14–18 years of age). In their sample, perception of family organization (clarity and structure in family activities and responsibilities) was the strongest predictor of suicide risk. School-based mental health professionals are frequently called upon to address suicide risk that is reliably greater in rural areas (Curtin, Cohn, & Belhumeur, 2014; Hirsch, 2006). In their review of the literature, Bridge, Goldstein, and Brent (2006) identified parent psychopathology (specifically depression and substance abuse), family history of suicide, non-intact families of origin, loss through death or divorce, quality of parent–child relationships, maltreatment, and disconnection from major support systems as associated with increased levels of suicidal behavior in teens. Given the impact of suicide ideation, attempts, and completions on the family as well as the potential role of the family in addressing risk for suicide, active attempts by school-based mental health professionals to consider family risk factors and to involve parents or other family members may, in some cases, make the difference between life and death. For example, firearms and pesticides are frequently used methods of suicide, particularly in rural areas (Hirsch, 2006). Family members can be enlisted to prevent potential suicides among school-aged children by preventing access to lethal means in the short term, and by increasing environmental structure in the longer term.

Mental Health in the Context of Schools

Individual schools are oftentimes recognized as a microcosm of the larger community (Hemmings, 2004; McQuillan, 1998; Reck, Keefe, & Reck, 1987). It is likely that administrators, teachers, and students have preconceived notions about individual students based upon last name, family reputation and community standing, or other experiences with family members, including pre-existing knowledge of mental health and behavioral problems. Whether positive or negative, expectations and assumptions influence treatment of individual students, and likely academic and behavioral outcomes (Mistry, White, Benner, & Huynh, 2008; Rosenthal & Jacobson, 1968; Sorhagen, 2013). School-based mental health professionals must attend to and challenge their own and others' preconceived impressions, opinions and expectations of students and their families to form a therapeutic alliance and provide equitable and evidence-based services.

Although rural geography may impose some shared elements that relate to child and adolescent mental health (e.g., increased isolation), rural areas vary significantly from one another (Mohatt et al., 2005). Overall, however, in the United States rural and urban areas can be reliably distinguished by the relatively higher rates of poverty and higher rates of uninsured/underinsured residents in rural areas (Rainer, 2012; Zhang et al., 2008). Within the context of rural schools, socioeconomic status is often apparent via free/reduced lunch programs as well as widespread knowledge of families and their resources. High rates of poverty and lack of adequate insurance coverage, combined with decreased availability and access to services, increases the appropriateness of school-based mental health services in rural communities. Although convenient for the student, it can be challenging to integrate parental or other family involvement when children or adolescents are seen by mental health professionals during school hours (Weist et al., 2014). Family involvement in school-based mental health programs is likely further challenged because as poverty increases, the likelihood of parents working multiple jobs, with limited flexibility and resultant difficulties in ability to communicate and participate in school-based mental health efforts, increases (Langley et al., 2010).

Family Involvement in School-Based Mental Health

As noted above, family members of children identified in the context of the school system as in need of mental health services may be concerned about the, often unfamiliar, provider

"blaming" them for the child's mental health or behavioral problems. Indeed, family members report caregiver stress (Loukissa, 1995) as well as fears of secondary stigma, blame and contamination (Corrigan & Miller, 2004) when a family member suffers from a mental illness. Perceived personal and social stigma toward mental illness and help-seeking tend to be high among rural residents (Mohatt et al., 2005), and need to be carefully considered and addressed in school-based mental health.

Lightfoot (2003) proposes a sociological examination of often unconsidered and unexplored barriers to effective parent–teacher conferences that may also apply to school-based mental health programs. Although parental engagement with the school system has been found to predict student academic success and emotional functioning (Wang & Sheikh-Khalil, 2013), Lightfoot (2003) notes that "ghosts," in the form of parent childhood school experiences as well as broader social differences between parents and teachers (e.g., educational attainment) can exert an unacknowledged emotional influence in parent–teacher relationships. Thus, teachers may experience parents as "uninvolved" rather than considering the possibility that parents may feel insecure in the school environment. Similarly, Weist and colleagues (Weist et al., 2014) noted that school-based mental health providers often attributed their difficulties involving families to negative and dispositional familial factors (e.g., disinterested) often prematurely abandoning efforts to engage with the family to assist the student. Such assumptions on the part of the clinician or other school staff are unlikely to result in positive outcomes for the student.

Obtaining parental or guardian consent is required for child and adolescent mental health services, even when delivered in the context of the school, but securing parental participation and involvement in the therapeutic process can sometimes be the first barrier to treatment. Zahner and Daskalakis (1997) investigated predictors of service use for child mental health issues (ages 6–11) across a variety of settings including specialized mental health settings, general health settings, and school-based services in two cross-sectional community surveys. They found that although severity of child mental health problem(s) predicted use of services across settings, parental belief that the child needed help was the strongest predictor of service use. Often with children and adolescents, parents are reluctant to consent to mental health treatment until significant events have occurred, such as multiple discipline referrals, academic decline, numerous absences, juvenile justice involvement, or even a suicide attempt. The purpose of embedded mental health services within the context of school settings is to provide the option for therapeutic services prior to these significant events occurring.

When engaging parents and/or guardians in a discussion about whether or not services are right for their child, it is important for clinicians to focus on the positive gains which can be made from participation in therapy and to make themselves available to addressing any and all concerns that parents may have regarding the consent and treatment process. Often this process requires clinicians to be sensitive to the cultural aspects of the community, and alter their presentation of the idea of treatment during the consent-obtaining process to ensure participation from the family during the course of therapy. In the case of rural communities, many parents may appear resistant to the topic of "psychotherapy," particularly in reference to their child. Several families have experience with local mental health agencies, and, if negative, carry the stigma of treatment with them from generation to generation. Occasionally, clinicians may find it helpful to avoid the terms "therapy" or "treatment" in favor of "counseling" or "support" in an effort to reduce stigma. Clinicians may also remind parents that since services are provided in schools, they do not run the risk of being seen in the parking lot of the local mental health agency (reducing stigma) and will not have to miss work to drive their children across the county to the local mental health office (addressing transportation, financial, and occupational barriers). The process of obtaining consent may look different from family to family as well, as concerns regarding treatment will likely vary from case to case. Again,

being sensitive to the parent and/or guardian's perspective and focusing on the benefits of treatment can help to ensure parental participation and support during therapy.

Taking time to address parental concerns and questions about school-based mental health services early on and throughout will likely prove successful in establishing a strong working partnership based on mutual respect, family strengths, and mutual concern for the child's well-being. For example, some rural families feel distrust toward schools and governmental rules and regulations. Clinicians who take the time to set up initial meetings with parents to review the particulars of informed consent, privacy practices, and disclosure of protected health information typically see more engagement from parents. Maintaining candid and open communication is critical to continued involvement throughout the student's treatment. The content of the communication must be presented in such a way as to minimize the distance between therapist and family. For example, terms like "clinical elevations," "self-injurious behavior," or even "therapy" can be substituted with terms such as "high," "cutting," or "skill building," respectively, to facilitate communication with parents. These nuances are typically left to the clinician to incorporate and should be based on an understanding of the unique culture in which they are working.

Rural School-Based Mental Health Exemplar: Assessment, Support and Counseling (ASC) Center

In an effort to address barriers to receiving mental health treatment, programs such as the Assessment, Support, and Counseling (ASC) Center, located in western North Carolina on the borders of Tennessee and Virginia, have been established as a viable means of service delivery to children, adolescents, and families (Michael et al., 2009). This center serves multiple schools in rural communities by providing outpatient therapy, crisis response, and consultation to students, teachers, and families in the rural area at no cost. The ASC Center is grant-funded and acts as a model of integrated care that involves university providers, local mental health agencies, community agencies, and school personnel (i.e., school counselors, administrators, nurses, student resource officers) with a focus on alleviating behavioral health symptoms to allow students to return to the process of learning.

Despite this laudable goal, the ASC Center was not initially welcomed by all members of the community. Whereas many parents and other community members were supportive of the idea of trained mental health clinicians helping students with behavioral and emotional problems, some expressed significant concerns and fears regarding the influence of the university on their children. For example, one individual posted on an online blog, "Beware that the county and board of education want to start a program that will expose your child to a shrink… Do you want this invasion of your privacy? This could open a huge can of worms." Another person wrote, "Again, speak up now or opt out later, IF you are allowed to opt out… Yes, the county has some problems, but most parents are very good parents and good people. They are building this up to make it look like our county has a WORLD of trouble… I think having shrinks evaluate the kids is a waste and will lead to major problems. They will mislead kids from normal homes … those are the ones to be concerned about, not the ones who you feel need help." (goashe.net). On the other hand, many individuals replied in support of mental health services being provided in the school. The expressed fears had to be acknowledged and addressed by ASC Center personnel prior to the onset of service delivery to increase the odds of active participation by students and their family members. Concerns such as those noted above do not disappear as they are often embedded in the culture (e.g., skepticism about "outsiders" coming in to "fix" a small community), and must be continually assessed and addressed.

Local Investigation in Rural Appalachia: Family Variables and School-Based Services

Below we present preliminary findings from an investigation of depression among residents in western North Carolina, the same area that houses the ASC Center described above. Certainly, the findings presented here are local and lack generalizability to many other rural communities; however, the methodology utilized to assess and consider the importance of context can apply to any community. The in-depth example highlights how historical and cultural factors influence understanding of a given rural community, and how this knowledge can inform school-based mental health services. Making sense of families and schools requires an understanding of the historical and cultural context, consistent with Bronfenbrenner's (1994) macrosystems and chronosystems. Rural Appalachia has experienced significant changes in recent decades, yet historic cultural patterns continue to influence local families. The mix of old and new in this case study bears some resemblance to many other rural areas where school-based services must be ever adaptable.

Historical and Cultural Context

Appalachia is a geographic region set along the Appalachian Mountain chain, which ranges from northern Alabama to New York (Appalachian Regional Commission, n.d.). Appalachia is a largely rural region of the United States and the population is predominantly white and working class. Often, children and adolescents spend 45–90 min riding buses to and from schools. Local services are also difficult for parents to access given restrictions on time and finances. Seasonal and year-round in-migration has added to the diversity of the population with the development of the recreation and tourism industry in the late twentieth century. In northwestern North Carolina counties, where Christmas tree farming provides much of the counties' annual income, there is an influx of seasonal Hispanic field workers. This pattern of migration has a significant impact on the school systems in these counties, as annual budgets for schools are determined based on the count of kids at the beginning and end of academic years. The influx of children of migrant workers can stretch educational resources, classroom sizes, and overall budgets.

Rural Appalachian natives have a long history of settlement in the region. Most are descendants of northern European immigrants from Germany and the British Isles arriving in the eighteenth and nineteenth centuries. Their pioneer communities were small, egalitarian settlements in which most residents engaged in subsistence agriculture. The subsistence economy was based on family farms, which provided most of their livelihood, and reliance on reciprocal exchange with neighbors, relatives, and friends as well as barter with the local general store for things they could not produce themselves. Extraction of timber, coal, and other minerals, made possible by the railroads built in the late nineteenth and early twentieth centuries, brought about considerable economic integration with the larger nation, especially in the coal mining areas of Central Appalachia. However, in the more agrarian southern section of Appalachia where our case study is located, engagement with the cash economy was minimal until after World War II when electrification and better roads made it possible for manufacturing to enter the region. Many who are alive today remember a time when life was less influenced by the modern world, and these chronosystem influences are palpable in Southern Appalachian communities today.

The rural people of Appalachia retain much of the influence of this premodern culture (Beaver, 1986; Halperin, 1990; Keefe, 1998), and it impacts all other systems via the cultural context as captured in Bronfenbrenner's (1994) macrosystem. In general, Appalachians value family and egalitarianism. They have a communal orientation marked by neighborliness and caring for others. At the same time, they are remarkably self-reliant, demonstrating "cooperative independence" whereby people cooperate in order to preserve their autonomy. People tend to resist charity and desire to be left alone to manage personal

affairs. This can manifest in reluctance to seek mental health treatment. Stigma and its impact on personal reputation, in rural Appalachian communities pose a significant barrier to people who require mental health services. By honoring the autonomy of others, one is likely to avoid social conflict, a trait also valued in Appalachian mountain communities. Thus, people are unlikely to advise others to seek mental health services. Finally, the area is predominantly evangelical Christian and many people embrace a sacred worldview. Because evangelical Christians understand their emotions as God-driven, they may resist psychological interpretations of the meaning of mental illnesses, such as depression, and their treatment (Keefe & Curtin, 2015).

Appalachian Illness Narratives: Informing School Mental Health Services

Much of the following is based on a qualitative study completed by Susan Keefe and Lisa Curtin in 2011[1] as well as examples from the ASC Center that provides school-based mental health services in the same communities. The 2011 study elicited illness narratives by adult Appalachian natives about their experience with depression. An illness narrative is the participant's self-reported culturally informed version of the illness etiology, symptoms, course, and treatment. This approach to the study of illness was developed by Kleinman (1980, 1988) in his research on depression in China and influenced the Cultural Formulation Interview featured in the Diagnostic and Statistical Manual of Mental Disorders-5 (DSM-5; American Psychiatric Association, 2013).

The value of self-sufficiency with regard to mental health was reflected in the comments by many in our sample, often in the context of the family. As one of our consultants said highlighting macrosystem influences, "In Appalachia, there is self-reliance. You have to be strong. So depression, thoughts of suicide, and abandonment are the easy way out. There's no cultural acceptance of that. You just have to keep fighting on, no matter how much you hate things." Others specifically mentioned that Appalachian natives avoid seeking help from others, again often referring to familial influences as well as the chronosystem and macrosystem. One woman said," I think mountain people didn't have help for so long, so when it finally did come, they ignored it. They were brought up to care for themselves. They don't reach out for help."

Of course, this tradition of self-care is also a reflection of the high number of uninsured in the region. Many parents are uninsured or underinsured and rely on state-funded Medicaid programs for child and adolescent health care that have age restrictions and limitations on coverage that interfere with individuals obtaining help. Furthermore, rural areas in Appalachia are underserved by health care providers and accessibility may be limited due to lack of transportation options, poor roads, and weather conditions. School-based mental health programs help address many of these barriers by attempting to reduce or eliminate the obstacles that are in place. The ASC Center, as described above, eliminates the barrier of insurance coverage. Providing services within the school and during the school day also reduces transportation barriers that may be present in rural communities.

Another roadblock to seeking mental health care in the Appalachian Mountains, and many rural areas worldwide, is the lack of awareness about the nature of mental illness and its treatment (Keefe, 2005). Rural communities are often marked by lower education levels and few venues for public service media announcements. Several cases in our sample said neither they nor their family had a name for their illness at its onset. One man said: "My family is clueless about it. I haven't talked about it at all with them." A number mentioned learning about depression through psychology classes that they or their friends attended. Many individuals in our treated sample

[1]The methods of this study are described in more detail in Keefe and Curtin (2015). The sample consists of 23 participants from two counties in western North Carolina who were diagnosed with depression by a health care provider and/or who were taking antidepressants, and who volunteered for the study.

learned about their illness as a result of mental health or medical intervention; for example, one-third of our sample was hospitalized at some point for their mental health condition, and 64% participated in psychotherapy (Keefe & Curtin, 2015). The etiological conceptualization of depression according to individuals in our sample was very similar to that supported by current theories. Eighty-two percent mentioned the impact of biological factors, most commonly a history of family illness that many saw as hereditary or genetic. The vast majority also believed that psychological and social factors as well as negative life experiences and other stressors, such as health problems, contributed to their depression. However, comments made by our participants and our interviews with providers and other experts suggest that this kind of complex understanding of depression is not shared by all residents in rural Appalachian communities, and is likely different across generational cohorts.

In line with the mission of the ASC Center, clinicians provide psychoeducational training to educators and school personnel on adolescent mood disorders as well as suicide. Presentations at teacher conferences, school board meetings, and monthly faculty meetings serve to both demystify mental illness and to better prepare individuals working within school settings to address behavioral health issues. Other topics, such as substance abuse and bullying, have been areas of concern among community members and the ASC Center has provided relevant education with an open invitation for continued education throughout the school year. Much of the information about mental health though is done on a case-by-case, family-by-family basis, as a significant portion of treatment is focused on educating individuals and families about the specifics of mental health problems and how they manifest in everyday life.

Many of the participants in our cultural exploration of depression (Keefe & Curtin, 2015) said their family rejected the idea that their problem(s) might be a mental illness, often spontaneously referencing the simultaneous influence of Bronfenbrenner's microsystem, macrosystem, and chronosystem. Culturally and familial-informed conceptualizations of mental illness have the potential to influence the use of services, including school-based mental health services. For example, family members may hesitate to acknowledge that someone within their family is experiencing a mental illness. One man said that when he told his grandparents that he suffered from depression, they replied: "Don't worry. We won't tell nobody." Another woman noted, "My illness has affected my relationship with my sister. My sister really won't talk to me at all. She sees mental illness as something to be ashamed of."

As noted earlier, concerns about public and self-stigma can negatively impact acceptability and use of available and accessible school-based mental health services (Mohatt et al., 2005). Family members directly and indirectly influence conceptualization of mental illness, and, in turn, propensity for help-seeking. According to one man we interviewed, "Pride is the biggest problem. Our county is small and everyone knows everyone else. People are concerned about how other people perceive them. So they [my family] won't tell no one "I've been suffering from depression"." School-based mental health professionals should be aware of the multigenerational transmission of messages concerning the stigmatized nature of mental illness as well as the potentially unspoken concerns students may have about the impact of help-seeking on their family members.

Despite the supportive religious macrosystem of rural Appalachia, clergy and the church were not frequently cited as sources of help among our participants (Keefe & Curtin, 2015). Instead, the symptoms of depression were, for many, regarded as spiritually problematic and shameful. "People who go to church see it as a bad thing," said one man. Many cases cited the special stigma that accompanies mental illness in evangelical Christian churches. Feelings of worthlessness, hopelessness, and helplessness may be interpreted by evangelical Christians as due to a lack of spiritual strength and the need for religious healing through prayer. Turning to a mental health professional might be perceived as not only inadequate but inappropriate, since most mental health profes-

sionals use secular therapeutic models. One young man from a Pentecostal family said "You don't talk about it. In my family, we don't talk about the sins that we're committing. Not premarital sex, not alcohol, not thoughts of suicide. It's not something you talk about. There was just a blanket response to problems: 'Remember to pray.' That was the all-encompassing solution." Another said, "People don't talk about it because they're embarrassed. It's not like a disease like cancer or something. They don't see it as a mental health problem… There is a stigma that goes with depression. If you're depressed, there's something wrong with you. Religious people like to keep that in the closet."

Concerns about the lack of attention to religious or spiritual variables may be even more acute in the context of secular public schools. In school-based mental health settings, the interpretation of mental illness as a religious concern occasionally arises. However, clinicians typically focus on a psychological perspective to understand and treat behavioral health problems. Nevertheless, religious views of mental illness must be taken into account when working with many clients in rural settings, as it is likely important in the lives of the individuals and families served (Aten, Hall, Weaver, Mangis, & Campbell, 2012). In an effort to provide culturally responsive services, clinicians should seek to incorporate client's individual views into treatment while maintaining the integrity of interventions for the presenting problem.

Summary and Practice Recommendations

When working with youth in school settings, cultural and familial variables must be taken into account. This is particularly true for rural environments where barriers to treatment often present clinicians with early challenges that can quickly derail successful intervention. Before embarking on clinical practice with rural families in school settings, mental health professionals must first consider behavioral and emotional disorders from an expanded framework rather than from just a set of standardized diagnostic criteria. Bronfenbrenner's (1994) ecological model provides a pragmatic way to conceptualize treatment context for clinicians working in rural communities. This model can help to identify potential barriers to behavioral health services as well as family and contextual variables that may help guide selection of appropriate evidence-based interventions.

Often, school-based clinicians are asked to intervene with adolescents on various microsystem issues, such as improving peer relationships, classroom management of behavior, or family conflict. These issues gain the most attention from school personnel, as they are likely to lead to discipline referrals, absenteeism, or declining grades. However, although the school and the clinician may value academic success, clinicians must assess and understand the family's values, particularly attitudes regarding the importance of education. These attitudes may be intergenerational in origin and therefore clinicians must strike a balance between the desires of the school and beliefs of the family they serve. The initial meetings with the child and family are critical to understanding these familial opinions and influences. At the time of intake, in addition to standard questions related to mental health symptoms and protective factors, mental health professionals would also benefit from incorporating each of the tiers in Bronfenbrenner's model. Assessment tools to identify school connectedness or family environment and attitudes may be helpful in recognizing mesosystem variables that clinicians can address during treatment (e.g., gap between family and school value of education). A historical and cultural analysis of an individual rural community integrated with an idiographic assessment, such as the illness narrative (Kleinman, 1980) as illustrated in this chapter, provides example of how to approach individualized and culturally responsive assessment and intervention.

Ecologically based interventions appear promising in the context of school mental health services (Dishion, Kavanagh, Schneiger, Nelson, & Kaufman, 2002). Specifically, the Family Check-up (Dishion, Stormshak, & Siler, 2010) utilizes individualized assessment and feedback using a Motivational Interviewing (MI) style

(Miller & Rollnick, 2013) to purposely target parental motivation and engagement. It is likely that the term "check-up" may be appealing to rural residents given the familiarity of the term from medical services and potential for decreased stigma. In addition, the MI style focuses on building intrinsic motivation to change, autonomous decision-making, and values-consistent goals that may be appealing to rural families.

Measuring treatment outcomes with rural populations in school settings also requires an understanding of familial and environmental variables. For example, the ASC Center program described in this chapter, charts outcome based on scores on the Behavioral Assessment System for Children (BASC-2; Reynolds & Kamphaus, 2004) and the Youth Outcome Questionnaire (YOQ-30; Burlingame et al., 2004) pre-intervention, throughout intervention, and post-intervention (Albright et al., 2013). These measures are not standardized on rural populations so it is often beneficial for clinicians working in rural communities to review individual items with clients to increase understanding of interpretation of questions. For example, in our case study, a student may report having no issues with "anxiety" but may struggle occasionally with "nerves," the latter being a term their family acknowledges and the former being one their family does not use. By taking the extra step to understand findings within a cultural context, outcomes become more meaningful and more indicative of successful intervention.

Mental health professionals, and more importantly consumers, in rural communities often face significant gaps in service. These gaps can be in types of services available, quality of services, or lack of procedures for handling mental health issues. Clinicians must be diligent about evaluating these gaps and take steps necessary to best bridge these gaps so clients do not go underserved. This process of developing appropriate procedures requires clinicians to utilize information about the culture and the systems that influence and are influenced by adolescents (e.g., Bronfenbrenner's model) and then tailor interventions. One example of this was the development of the Prevention of Escalating Adolescent Crisis Events (PEACE) Protocol by members of the ASC Center (Sale, Michael, Egan, Stevens, & Massey, 2014). Mental health workers, through partnering with and integrating into the school culture, developed a protocol for handling suicidal and homicidal crisis events that may occur during the school day. This protocol used language common to all personnel involved with youth (administrators, student resource officers, nurses, teachers, school counselors, etc.) to establish an effective and rapid way for students in crisis to be served. Protocols such as PEACE benefit from being developed organically from onsite workers faced with situations where students were not being served adequately. Since each culture has different needs, different protocols must be developed or adapted to fit the requirements of a specific school environment.

Consistent with the development of the PEACE protocol, Community-Based Participatory Research (CBPR; Israel, Schulz, Parker, & Becker, 1998) that actively involves an identified community (e.g., school system and personnel, parents, students, university partners) equally in all aspects of research, ranging from hypothesis development to dissemination, offers a promising methodology for rural school-based mental health services. In particular, it is recommended that CBPR, as well as traditional controlled clinical trials, be utilized to investigate ways to increase school connectedness for students and family members, and to investigate the effectiveness and efficacy of ecologically sensitive interventions (e.g., Family Check-up) within school-based mental health services. Investigations of student and family understanding of mental illness and attitudes toward mental health services, including the influence of religious beliefs, in rural communities will likely prove informative in further contextualizing school-based interventions.

School-based mental health services address many of the barriers to care in rural areas. However, family involvement is a critical element of successful intervention with children and adolescents. The therapeutic alliance with child/adolescent clients and their family members (e.g., parent[s]) is predictive of treatment

outcome, and attention to a working alliance with parents/guardians may be particularly important relative to treatment continuation (Shirk & Karver, 2011). It can be challenging to engage family in the context of the school system, and these challenges may be enhanced in rural environments which are often characterized by poverty, lower educational attainment, concerns about stigma relative to mental health problems, and relatively little anonymity and privacy. Careful consideration of familial and local understanding of mental health problems, social and political history as well as current forces, long-standing intergenerational relationships between families and school systems, and policies and procedures that respect the powerful and proximal influence of both the family and schools on youth development may prove to reciprocally and positively impact rural communities.

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Contributions of Applied Behavior Analysis to School-Based Mental Health Services in Rural Communities

19

Jeannie A. Golden, Dorothy Dator, Kathryn Gitto, and Christelle Garza

Barriers to Accessing Mental Health Services in Rural Communities

Estimates indicate that about 20% of children nationwide suffer from a mental illness and if those children do not get treated they are likely to become debilitated (Kataoka, Zhang, & Wells, 2002). Mental illness appears to be less prevalent in rural areas (Hartley, Bird, & Dempsey, 1999), but there exist higher rates of suicide among rural residents, especially children and men (Eberhardt, Ingram, & Makuc, 2001; Hartley et al., 1999). However, in rural communities, behavioral health care is often in short supply (Mullin & Stenger, 2013). Due to the scarcity of human resources across large geographic areas, there are simply fewer available services (McCormick, Kass, Elixhauser, Thompson, & Simpson, 2000).

People in rural communities are generally not within walking distance of educational, medical, and recreational facilities and resources (Arcury, Preisser, Gesler, & Powers, 2005; Yousefian, Ziller, Swartz, & Hartley, 2009). Rural residents might have to travel long distances to receive mental health services, and most do not have the financial means to receive such services (Goldsmith, Wagenfeld, Manderscheid, & Stiles, 1997; Hartley et al., 1999; Holzer, Goldsmith, & Ciarlo, 1998; Sawyer, Gale, & Lambert, 2006). Financial problems that are more prevalent in rural areas include: being uninsured and ineligible for Medicaid (such as children of undocumented migrant workers), inability to rely on public funding, requirements for reimbursement that are restrictive, fragmented and complicated systems of funding, more expensive service delivery (due to smaller numbers because of expansive geographic areas), and failure to fund evidence-based practices (Logan, Stevenson, Evans, & Leukefeld, 2004; Sawyer et al., 2006; Stamm, 2003).

Less qualified personnel are available in rural communities (Rowland & Lyons, 1989; Wagenfeld, 2003). Furthermore, existing clinicians lack training for providing mental health treatment and specific expertise for working with children and adolescents (Sawyer et al., 2006). Yet, clinicians serving in rural primary care and community-based health care settings require an extensive range of skills to address the varying needs that exist in the rural environment (McIlwraith, Dyck, Holms, Carlson, & Prober, 2005). The stigmatization of psychiatric disorders, the lack of trust in medical professionals, and concerns over lack of confidentiality are

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additional barriers for individuals in rural communities to accessing mental health services (DeLeon, Wakefield, & Hagglund, 2003; Sawyer et al., 2006; Stamm, 2003).

Schools in rural communities have the potential to provide these much-needed behavioral health services while overcoming barriers to service (e.g., lack of transportation, financial need, stigma). Students in rural communities are often unable to stay after school for enhanced learning opportunities, extracurricular activities, after-school monitoring, social events, or mental health sessions. Providing mental health services that are school-based can ameliorate each of these problems. Rural youth can access these services during the school day, not requiring them to stay after school, eliminating the problems of transportation and cost, and reducing stigma (by simply going to the health clinic or the guidance counselor's office).

There are still, however, some problems in rural schools preventing them from being the ideal place for providing mental health services. Effective mental health service delivery requires collaboration and cooperation among the mental health providers, school administrators, parents and families, and school personnel (teachers, guidance counselors, nurses, social workers, psychologists). However, parents in rural communities face unique challenges that could make it difficult to attend parent–teacher conferences, school functions, or ongoing school activities (Semke & Sheridan, 2012), particularly parents of children from minority groups, such as Hispanic parents (Smith, Stern, & Shatrova, 2008). Minority families also show lower participation in mental health services (Angold et al., 2002; Kazdin, Holland, & Crowley, 1997). Families experiencing poverty is also a risk factor for low parental involvement in schools and in mental health services due to financial difficulties and higher stress levels (Armbruster & Kazdin, 1994; Brannan, Heflinger, & Foster, 2003; McKay & Bannon, 2004; Powell, 1993; Reynolds, 1992).

In a rural sample both ethnic groups were at equal risk for having psychiatric disorders, although black youth were less likely to receive mental health services than white youth (Angold et al., 2002). On the other hand, school-based mental health services were accessed equally and at a higher rate than community services by both groups. This speaks to the potential for mental health services to be provided to youth in rural communities by schools.

Not only is there a problem with the lack of parental involvement hampering the collaboration and cooperation necessary to provide mental health services in the schools, there is also the scarcity of services and human resources in rural communities. This may lead to a shortage of competent, credentialed, and trained teachers, administrative staff, and student support personnel (e.g., psychologists, social workers, counselors, nurses). These school personnel may lack the training and supports they need to provide mental health services. One example of this is the school psychologist. Although school psychologists are required to provide a range of integrated health services to their students (DeLeon, Giesting, & Kenkel, 2003), they are often unlikely to have received training to provide mental health services.

So, then, how can Applied Behavior Analysis (ABA) make a difference? ABA is a set of principles governing human behavior and the application of those principles to alter behavior in ways that improve outcomes for a diverse range of individuals with a wide variety of problems (Bellack, Hersen, & Kazdin, 1990; Fisher, Piazza, & Roane, 2011). For example, Miltenberger and Gross used ABA to teach safety practices to children (2011) and several researchers have used it in the treatment of substance abuse (Holden, Moncher, & Schinke, 1990; Silverman, Kaminski, Higgins, & Brady, 2011; Sobell, Wilkinson, & Sobell, 1990). A book entitled *International Handbook of Behavior Modification and Therapy* has chapters outlining ways that ABA has also been used in the treatment of obesity (Israel, 1990; Wadden & Bell, 1990), habit disorders (Adesso, 1990), eating disorders (Garner & Rosen, 1990), sexual deviation (McConaghy, 1990), sexual dysfunction (LoPiccolo, 1990), marital distress (Weiss & Heyman, 1990), and pain (Turk & Rudy, 1990). ABA has been used to

treat various psychiatric disorders, such as anxiety disorders (Emmelkamp, 1990), obsessive-compulsive disorder (Steketee & Cleere, 1990), conduct disorders (Kazdin, 1990), and schizophrenia (Bellack & Mueser, 1990). The principles and strategies of ABA cross disciplines and as such have been used in adult medicine (Peterson & Harbeck, 1990; Taylor, Ironson, & Burnett, 1990), pediatric medicine (Friman & Piazza, 2011), neuropsychology (Goldstein, 1990), geriatrics (LeBlanc, Raetz, & Feliciano, 2011; Patterson, 1990), and education (Martens, Daly, Begeny, & Van Der Heyden, 2011).

Services that are typically provided by behavior analysts may include the conducting of functional behavioral assessments, the collection and analysis of data, the development of function-based treatment plans, and the training and monitoring of those who implement treatment plans (Behavior Analysis Certification Board, 2016). For example, when a child is exhibiting aggressive, oppositional behavior, the behavior analyst (BA) would assess to determine the function of this problematic behavior (i.e., to gain attention or escape task demands), take data to determine the environmental circumstances in which the problem behavior has high vs. low frequency of occurrence, develop a treatment plan to replace that problem behavior with a more acceptable behavior that serves the same function, and then assist the adults in that child's environment (parents, teachers) to implement the plan. The BA would also facilitate continued data collection to ensure that the treatment plan was in fact effective at ameliorating the problem behavior. This is in direct contrast to a traditional psychologist who may make a diagnosis based on symptomology and then treat the child's disorder rather than the child's behavior (Cipani & Schock, 2011).

Strategies often employed by behavior analysts may include positive and negative reinforcement, prompting, shaping, fading, modeling, and providing feedback. Examples would include: praising a child for staying on task, prompting a child with an anxiety disorder to use a coping strategy (Minahan & Rappaport, 2012), gradually getting a sedentary adolescent to walk for longer durations on the treadmill (shaping), gradually removing supports that assist an individual with anorexia nervosa (fading), modeling for a husband how to deliver loving statements to his wife, and providing feedback to a parent who is attempting to use a new behavioral strategy with her child.

Thus, the versatility and wide range of uses of ABA can work well in a rural school environment. It can be used for providing skills and support to struggling parents, dealing with challenging behaviors associated with psychiatric disorders in children, assisting classroom teachers with behavior management and instructional strategies, and improving how administrators deal with issues such as bullying, discipline problems, and poor academic skills on a system-wide basis. In sum, ABA can make significant contributions to School-Based Mental Health Services (SBMHS) in rural settings.

Schools are adopting a more comprehensive, multisystem approach for coping with the challenge of students with needs at various levels of intensity (Teske, 2011) and incorporating multiple significant others across environments (Lauchlan, 2003) for dealing with these challenges. Rather than considering SBMH as the purview of one individual providing services to an individual student or small groups of students, the ABA perspective would view SBMH as altering and structuring environments so that they encourage and support good mental health and prevent and ameliorate mental health problems. Therefore, ABA makes contributions to SBMH through classroom-level interventions, school-wide programs, changing school personnel's behavior, and changing parents' behavior.

ABA Contributions to Classroom-Level Interventions

There are indications that behavior management strategies focusing on changing environmental events, antecedents as well as consequences, at home and in the classroom, have been effective with both problem behaviors and academic functioning. This includes students with a variety of psychiatric diagnoses, such as ADHD (DuPaul &

Eckert, 1997; Pelham, Wheeler, & Chronis, 1998), ODD, and CD (Brestan & Eyberg, 1998). These studies have demonstrated that the use of ABA in classroom settings is among the most efficacious school-based treatment for children with these disorders.

One study demonstrated the efficacy of comprehensive behavioral treatment for children with ADHD in a rural setting (Owens et al., 2005). This treatment program had several components in addition to a classroom-level intervention. It was conducted in three rural elementary schools, and also included consulting with parents and teachers, implementing a manualized parent training program, performing care coordination with other providers, and providing individual counseling sessions to children. The entire treatment package employed several ABA procedures including the daily report card (DRC), reinforcers and consequences at home for behaviors at school, and behavior management techniques (both individual and classwide) employed by teachers in the classroom. Results indicated that not only did the intervention reduce ADHD symptoms such as hyperactivity and impulsivity, but it also reduced oppositional, defiant, and aggressive behaviors and improved academic and social behaviors. Finally, in terms of accessing psychosocial treatment, more than half of the participants in this study were not receiving services prior to this study, although 43% of the treated children had previously been taking psychoactive medication.

One of the most researched and efficacious classroom-level ABA interventions available that can be used as a classroom-level intervention is the Good Behavior Game (GBG) (Nolan, Houlihan, Wanzek, & Jenson, 2014). The GBG is a procedure in which the teacher divides the class into two teams and each team competes to earn the least number of marks for infractions or inappropriate behaviors. Each member of the winning team or the winning team as a whole receives prizes at the end of the class, day and/or week.

Kleinman and Saigh (2011) used the GBG with urban high school students and found significantly reduced rates of class disruption using a reversal research design. A study in Belgium with rural elementary school students who had low rates of on-task behavior experienced significant reductions in aggression and improved peer relationships after teacher use of the GBG. Ruiz-Olivares, Pino, and Herruzo (2010) demonstrated a reduction in disruptive behaviors with maintenance during a 1-year follow-up using a combination of the GBG and Say-Do-Correspondence Training in a group of elementary school students in a rural area of Spain.

Embry (2002) provides an extensive review of the literature documenting the short- and long-term positive effects of the GBG in reducing impulsive and disruptive behavior. The short-term effects included significant improvement on teacher ratings of male and female students' aggressive behaviors, and an increase in student on-task performance in the classroom. Long term effects included a future decrease in the initiation of substance abuse and violent and antisocial behavior. In 2014, Nolan and his colleagues conducted a cross-cultural review of the literature of the effectiveness of the GBG and found it to create positive immediate and long-lasting change across cultures, in varying socioeconomic groups, and with a wide variety of student populations.

Contributions of ABA to School-Wide Programs

ABA provides a potential solution to the lack of available resources and poor quality of behavioral health services in rural communities through its contributions to school-wide programs. The advantages of school-wide programs that use ABA principles are: (1) they can be provided within the school day so no before- or after-school monitoring or transportation are necessary, (2) they don't require singling out specific students with behavioral or mental health needs since interventions can be implemented school-wide or classroom-based so there is no stigma, (3) they are more cost effective because school-wide interventions reach more students, and (4) by providing teachers and parents with strategies and interventions that are evidence-based, many behavioral and mental health problems can be prevented.

Schools are important arenas to promote child and adolescent development, playing an influential role both directly and indirectly. Interactions and strategies that are used in the classroom and throughout the school to support children with mental health issues are just as important, or possibly more important, than outside treatment. Children benefit more from treatment when administrators, teachers, student support staff, and parents are part of the "treatment package" rather than when adults view the problem as solely within the child and something that can be dealt with in isolation or through individual therapy (Elias et al., 1994; Flannery, Sugai, & Anderson, 2009; Quinn, Kavale, Mathur, Rutherford, & Forness, 1999).

Two such school-wide programs that incorporate the elements of ABA include: Positive Behavioral Interventions and Supports (Positive Behavioral Interventions and Supports (PBIS), 2016) and Project ACHIEVE (Knoff, 2000; Knoff & Batsche, 1995).

PBIS, which is based on principles and practices of ABA, is a program created to ensure that all students have access to the most effective and accurately implemented instructional and behavioral practices and interventions. There are several hallmarks of ABA that are used by PBIS. In fact, Horner and Sugai entitled a published article "School-wide PBIS: An example of applied behavior analysis implemented at a scale of social importance" (2015, p. 80). This journal article delineates specific ways in which ABA shaped key features and implementation strategies of PBIS. Whereas other authors (Critchfield, 2015; Loukus, 2015) may disagree that PBIS is totally behavioral, they do agree that the fundamental components of PBIS have their origins in ABA. These fundamental components include: functional behavioral assessment to identify the source of problem behaviors, behavioral interventions that have evidence to support their effectiveness (e.g., positively reinforcing appropriate behaviors and delivering consequences for inappropriate behaviors), and ongoing data collection as a means of monitoring treatment effectiveness.

PBIS approaches students' school-wide behavior using a triangular model with three levels of prevention/intervention (Dunlop, 2013; Molloy, Moore, Trail, Van Epps, & Hopfer, 2013) (see Fig. 19.1). Each of the three levels of services provided by PBIS use principles and strategies from ABA.

The primary level, Tier 1, reaches all students in the school by promoting a school climate that emphasizes a "culture of consistency" through school-wide expectations and progress monitoring, positive reinforcement for students who meet those expectations, and standardized disciplinary measures when those expectations are not met. These features of PBIS are all based on ABA principles, such as positive reinforcement, providing feedback, and public posting (Luselli, Putman, & Handler, 2000).

Positive reinforcement is one of the most widely researched and recommended procedures of ABA. Positive reinforcement can take the form of social, tangible, and token rewards.

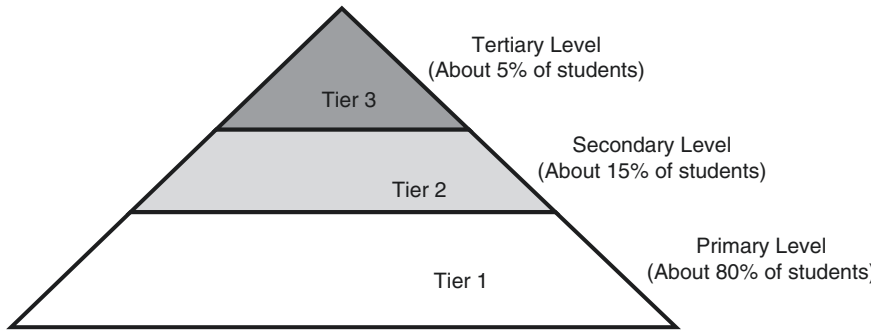

Fig. 19.1 PBIS three-tiered model of services

Social reinforcement in the form of praise, tickles, and head rubs, for example, has been shown to increase a target behavior (children passing a chip) (Smaby, MacDonald, Ahearn, & Dube, 2007). Tangible rewards such as candy have been highly effective in increasing the rate at which children learned a novel task (Unikel, Strain, & Adams, 1969). Tokens, which function as reinforcers because of their exchange value for accessing backup reinforcers, are considered generalized reinforcers. Researchers have demonstrated the effectiveness of token reinforcers in the academic performance of delinquent male juveniles (Tyler & Brown, 1968). The "bucks" that are delivered to students and school personnel for rule-following behavior and meeting expectations are used in PBIS are tokens that can be exchanged for a variety of reinforcers available in the PBIS store. De Martini-Scully, Bray, and Kehle (2000) were able to reduce disruptive behavior of two students in a general education classroom through the use of an intervention package that combined many behavioral analytic treatment strategies: contingency contracting, posting of rules, teacher interaction style (proximity, voice tone, and eye contact), differential reinforcement, token reinforcement, and response cost.

The secondary level, Tier 2, reaches those students who are struggling due to a lack of appropriate skills needed to meet expectations and focuses on teaching new skills, often in a group format. Several ABA procedures are used in teaching new skills, including positive reinforcement, prompting, shaping, fading, modeling, and providing feedback.

The tertiary level, Tier 3, deals with less than 5% of the student population, creating individualized plans for those who cannot meet expectations with school-wide or small-group interventions (PBIS, 2016). In Tier 3, when a child is identified as having problem behaviors that require more individualized attention, functional behavioral assessment (FBA) of target behaviors is used to identify their functions or causes, making it more likely that the child will receive the needed help. Once the unique reasons for the problem behaviors occurring with that child are discovered, function-based interventions can be developed that teach and reinforce the child for exhibiting more appropriate replacement behaviors (Barrett, Bradshaw, & Lewis-Palmer, 2008). FBA and function-based interventions are two procedures that distinguish ABA from other types of assessment and intervention for children exhibiting behavior problems (Cipani & Schock, 2011).

PBIS is founded on evidence-based academic and behavioral practices and incorporates the use of data for decision-making, identifying measurable outcomes, and providing evidence that such outcomes have been achieved (Turnbull et al., 2002). Data-based decision-making is one of the hallmarks of ABA, along with operationalizing outcomes and being evidence-based (Cooper, Heron, & Heward, 2007).

When schools implement these practices, PBIS provides a support system to enable them to be more successful (Turnbull et al., 2002). This system targets all the children in a school, whether they are adequately progressing or have identified academic, social-emotional, or behavioral needs.

Although there is evidence to support the efficacy of PBIS in urban and suburban schools (Bradshaw, Mitchell, & Leaf, 2010; Lassen, Steele, & Sailor, 2006), a review of the literature revealed a lack of studies documenting the use of PBIS in rural schools. This is most likely due to a lack of professionals with this expertise who are available to support the development and implementation of this approach (Mendel, 2008). It may also be attributable to a scarcity of resources to support its implementation as well as a lack of interest or involvement on the part of administrative, teaching or support staff, and/or parents and community members. Even specific to PBIS, Mendel (2008) reported that there is a lack of professionals in rural areas who can provide support at the secondary and tertiary levels of PBIS and that transportation costs to access those professionals is prohibitive. A study that measured the effectiveness of PBIS in two schools located in rural communities yielded some promising results tempered by a lack of sustainability (Flores, 2010). Although there were significant effects in the second year on discipline referrals, suspensions, and attendance, these effects

appeared to diminish in the third year as the schools received less support from PBIS trainers. There was also a lack of noticeable change in academic achievement.

An intervention that is similar to PBIS and also uses several components of ABA is Project ACHIEVE (Knoff & Batsche, 1995). Components of this program have been used in schools throughout the United States in urban, suburban, and rural areas (Knoff, 2000). The goal of the Project ACHIEVE School Safety and Effective Behavior Management Model is to set up a school-wide approach to handling student behavior that focuses on positive discipline and the development of prosocial skills. The model emphasizes the development of school personnel ability to train and reinforce students' problem-solving and socialization skills. Teachers are taught to use positive reinforcement and timeout in a consistent manner as well as other behavioral intervention strategies.

Community and family outreach is another important component, with emphasis on training parents to use behavior management strategies and to teach prosocial skills to their children. It incorporates methods from ABA including modeling, role play, feedback, application, and reinforcement. Outcomes in participating schools have been impressive in terms of improved student retention, reduced discipline referrals and suspensions, and fewer special education placements (Knoff, Finch, & Carlyon, 2004).

Thus, these two programs illustrate that using ABA principles and strategies on a school-wide basis has the potential of making a positive impact on school-wide student behavior and placement. However, there has not been enough documented evidence of the effectiveness of using PBIS in rural schools.

Contributions of ABA to Changing School Personnel's Behavior

Another potential contribution of ABA to SBMHS in rural communities is its ability to effect change in the behavior of school personnel. According to the tenets of ABA, the most significant impact on students is through the modification of the environments where they spend most of their time and that are the most meaningful to them (Cooper et al., 2007). Parents, teachers, and other significant adults that surround children and adolescents influence their choices and behaviors and have the potential to prevent and modify undesirable behaviors (North Carolina Institute of Medicine (NCIOM), 2009).

In order for significant and lasting behavior change to occur, appropriate social behavior must be taught and reinforced within natural settings such as the classroom and the home (Elias et al., 1994; Franco et al., 2009; Quinn et al., 1999). An accepted strategy for increasing the use of appropriate social skills (and decreasing inappropriate behavior) is the alteration of antecedents or consequences of target behaviors in the natural classroom setting (Elliott & Busse, 1991). If a replacement behavior results in immediate and salient reinforcement in the natural environment, the frequency of the behavior will increase in that environment (Elliott & Gresham, 1991). Teachers and other significant adults can be trained to enhance the effects of social skills training (SST) by prompting the use of target behaviors, providing feedback and praising appropriate skills (Nazar-Biesman, 2000).

Behavior analyst can provide significant assistance to teachers as they attempt to cope with the many behavioral challenges and academic difficulties that students exhibit. Often the controlling variables for students' problem behaviors are access to attention or access to a preferred item, activity, person, or place (Cipani & Schock, 2011). The problem that sometimes occurs in schools is that teachers deny access to these environmental variables when students are exhibiting appropriate behaviors and inadvertently make them available when problem behaviors occur. For example, a teacher may attend to problem behavior by reprimanding a student and/or becoming visibly upset. If the student's behavior escalates and the student "gets out of control," the teacher may feel that he/she has no other choice but to give the student something to calm them down (the item or activity that was denied upon request) or send them to the office or a

"time out" area (which may be a preferred place or have preferred people or activities). On the other hand, the controlling variables for students' problem behaviors could be escape from an aversive task or activity—aversive because it is too lengthy or too difficult (Cipani & Schock, 2011). If a request for a break (from a lengthy task) or assistance (with a difficult task) is denied or an "allowed break" is not forthcoming, the problem behavior may be exhibited in order to get an immediate break, often in the form of an escalation to "out of control" either to escape or postpone the aversive task or activity.

The behavior analyst as a consultant interviews the teacher and observes the student in the classroom to develop a hypothesis about the function of the problem behavior. This hypothesis is then tested by systematically altering the possible controlling variables to determine their effect on the student's behavior (Witt, Gresham, & Noell, 1996). This in-situ hypothesis testing actually consists of comparing the student's behavior under the existing stimulus conditions of the classroom (baseline) to the student's behavior under altered treatment conditions to empirically test the hypothesis about the behavior's function (Cipani & Schock, 2011). Once the controlling variables are identified, the next step is to develop a treatment that alters the environmental variables that instigate and maintain problem behavior. Then it is the role of the behavior analyst to assist the teacher in the implementation of a treatment with procedural integrity and to assess its effectiveness in ameliorating the problem behavior. This is accomplished through the consultation process.

In a nationwide survey conducted by the Substance Abuse and Mental Health Services Administration (Foster et al., 2005) investigating the types of services available to address the mental health needs of children in public schools in the United States, the two most prevalent services provided (in more than 80% of schools) were behavioral assessment and consultation. Although the personnel may be available in the schools to implement these empirically based strategies and interventions, many lack the training and system support to do so effectively (DuPaul, 2007). In addition, a shortage of school psychologists has led to these professionals being assigned several schools across a school district, rather than being allowed to focus their efforts on one school. This could lead to psychologists only having the time, resources, and skills to conduct testing and write reports while being unable to provide much-needed behavioral assessment and consultation (Davis, McIntosh, Phelps, & Kehle, 2004).

Providing schools with training and consultation regarding effective behavior management techniques can provide preventive strategies for promoting good student mental health. An example of this was a study conducted with a middle school female student who exhibited severely disruptive, aggressive behavior and had several diagnoses, including "severe emotional disturbance," schizophrenia, and attention deficit disorder for which she was medicated with Ritalin, Dexedrine, and Mellaril (Dunlap, Kern-Dunlap, Clarke, & Robbins, 1991). A functional assessment was conducted by behavior analyst consultants and curricular revisions were made in line with the findings of the functional assessment. Revisions included: shortening fine-motor and academic tasks and interspersing them with large-motor tasks, using interesting content with concrete outcomes, and providing a menu of tasks to choose from. Following the curricular revision intervention, levels of disruptive behavior were reduced from 0% to 90% of the intervals observed (with a mean of about 40% of the intervals) to 0% of the intervals observed on all but 1 day (in which it occurred in 3% of the intervals) for over a month with 10 weeks of follow-up. During the same time period, on-task behavior ranged from 89% of the intervals to 100% of the intervals observed. This dramatic change likely would not have occurred without the expertise of the behavior analyst consultants.

Whereas the purpose of this section of the chapter is not to provide an extensive review of effective consultation practices, it is important to note the contributions that ABA can make to this process. Performance feedback, which consists of providing objective information based on continuous data collected on target behaviors, has

been demonstrated to increase the integrity of teacher-implemented evidence-based strategies and result in ensuing effects on student performance (Fuchs, Fuchs, Hamlett, Walz, & Germann, 1993; Jones, Wickstrom, & Friman, 1997; Mortenson & Witt, 1998; Noell, Witt, Gilbertson, Ranier, & Freeland, 1997; Noell et al., 2000; Noell et al., 2005; Reinke, Lewis-Palmer, & Martin, 2007; Witt, Noell, LaFleur, & Mortenson, 1997).

Behavior analysts have for a long time been publishing articles about the effect of performance feedback and praise on teachers as well as paraprofessionals working in settings with children and adults with developmental disabilities. In an early study by Cossairt, Hall, and Hopkins (1973), performance feedback combined with praise of the teacher by the consultant proved to be the most effective strategy for increasing teacher use of praise with students. The following are some examples of the statements used by the consultant when the teacher praised the students: "(1) 'You had the whole class attending to you, Mrs. A.', (2) 'John was really responding to your attention, Miss B.', (3) 'You certainly have the ability to hold their attention with your praise', (4) 'Your praise is powerful. The target students really respond to you'" (1973, pp. 91–92). Not only did contingent praising of the teacher result in more teacher praise and more student attention to the teacher, but teacher praise of student behavior maintained and even increased with an intermittent schedule of social reinforcement. Harchik, Sherman, Sheldon, and Strouse (1992) used performance feedback in a group home to increase staff engagement of clients in activities and improving interactions. Leblanc, Ricciardi, and Luiselli (2005) used performance feedback to improve discrete trial instruction by assistant teachers working with children with autism.

In a study by DiGennaro, Martens, and Kleinmann (2007), researchers examined the effects of setting goals, providing feedback on the performance of the teacher or the student, and escape from the consultation meeting (negative reinforcement), all three of which are behavioral analytic strategies, on the extent to which four teachers implemented treatment procedures with integrity. The treatment procedures, which consisted of function-based treatments, were effective in reducing problem behavior for three out of four students and performance feedback plus escape from the consultation meeting was the most effective in increasing treatment integrity and student performance. Reinke, Lewis-Palmer, and Merrell (2008) attempted to increase the rate of teacher-delivered positive reinforcement (praise statements) by implementing two separate strategies of teacher consultation. The first was the use of class wide check-up (CCU) combined with a self-monitoring procedure. The second consisted of CCU combined with visual performance feedback (VPF). CCU used techniques from motivational interviewing to encourage teachers to use praise statements as a classroom-wide strategy. Although teachers may initially be reluctant to use behavioral techniques because they are time-consuming and use valuable instructional time, they may become aware of the benefits of these strategies as they experience positive outcomes in terms of increased student cooperation and improved academic achievement (Owens & Murphy, 2004).

Contributions of ABA to Changing Parent Behavior

One of the hallmarks of ABA is teaching significant others to use its principles and strategies to affect and maintain positive changes in the identified client. For example, Lovaas (1978) had a tremendous impact on the outcome for children with autism when he trained parents as therapists using the principles and techniques of ABA to work with their children. The benefits of parent training in applied behavior analysis techniques have been well documented (Kaminski, Valle, Filene, & Boyle, 2008; Kazdin, 1997; Reyno & McGrath, 2006).

In a meta-analysis of the effectiveness of parent training, Kaminski et al. (2008) concluded that there were four factors that enhanced the efficacy of parent training: (1) observed in vivo practice by parents with their child, as well as

parent skill training in communicating about emotions; (2) teaching parents to reward appropriate behavior with enthusiastic, positive attention while allowing the child to lead in play; (3) providing parents with instruction in time out procedures; and (4) teaching parents to consistently provide consequences for inappropriate behavior.

A thorough review of the literature revealed that there is a scarcity of empirically tested programs specifically geared towards rural parents. A parenting program that targeted 175 low-income, rural families in a Midwest state found statistically significant self-reported improvements in specifically targeted parenting behaviors following treatment (Kosterman, Hawkins, Haggerty, Spoth, & Redmond, 2001). The intervention included the use of paired workshop leaders who were recruited from the community in which the trainings took place, and these leaders held two sessions each week in order to accommodate schedules of the parents. By recruiting leaders from the community and offering alternative training times, this approach addressed two unique characteristics of rural populations: (1) a tendency to mistrust mental health providers and perceive a stigma attached to receiving mental health services (DeLeon, Wakefield, & Hagglund, 2003; Sawyer et al., 2006; Stamm, 2003) and (2) difficulty receiving mental health services that are offered due to travel distances (Bischoff, Hollist, Smith, & Flack, 2004).

Another program was conducted with 24 rural families with preschool children in Australia (Connell, Sanders, & Markie-Dadds, 1997). This self-directed program based on the Triple P (Positive Parenting of Preschoolers) program (Markie-Dadds & Sanders, 2006) employed the use of mailed materials (e.g., parenting book, workbook, and checklist) in which the parents practiced goal setting, self-monitoring, and strategy implementation with the help of weekly telephone conversations with behavioral consultants. The goal of the program was to teach parents skills in problem solving and how to self-monitor behaviors, select their own goals, and choose their own reinforcers. When parents had difficulty implementing specific program components, they were asked to refer to the written materials rather than rely on consultant assistance. Improvements were found in measures of child behavior as well as parent satisfaction and feeling of competence that were maintained at 4-month follow-up.

Access to parents is a particularly challenging aspect of providing mental health services in rural areas. However, the benefits of providing parents with strategies and tools to handle problem behaviors in their children has far-reaching benefits in terms of improved behavioral outcomes and parent adjustment (Sanders, 1999). The principles and strategies of ABA are well documented for improving child behaviors and preventing and treating childhood disorders such as attention deficit/hyperactivity disorder (ADHD) (Fabiano et al., 2009; Owens et al., 2005), oppositional defiant disorder (ODD) (Barkley, Edwards, Laneri, Fletcher, & Metevia, 2001), and conduct disorders (CD) (Reid, Patterson, & Snyder, 2002; Serketich & Dumas, 1996). The greater challenge is sharing this information and teaching and motivating parents, particularly in rural areas, to consistently use these strategies with their children.

Remaining Challenges for Contributions of ABA

There still remain several gaps in the literature related to school-based services. Areas in need of further research include the efficacy of these strategies across diagnostic categories (Hoagwood, Burns, Kiser, Ringeisen, & Schoenwald, 2001; Weisz, Donenberg, Han, & Weiss, 1995), the impact of comprehensive school-wide interventions, and the effectiveness of these interventions without the support of university researchers. The SBMHS program that significantly increased the accessibility and acceptability in several rural schools did so with the support of charitable trust and federal grants to university personnel for the administration of the grant (Golden, Ongsuco, & Letchworth, 2013). The study by Owens and her colleagues

(2005) that demonstrated the efficacy of comprehensive behavioral treatment for children with ADHD in a rural setting was also supported by grant funding provided to university personnel. This raises an issue as to how public schools in rural communities can secure access to sustainable SBMHS.

There are many ways in which ABA has made significant contributions to SBMHS in all geographic areas. The special vulnerabilities associated with the rural setting can make the contributions even more important in this setting. Although there are some promising benefits of the use of ABA principles and procedures, or programs that incorporate those procedures, to enhance SBMHS in rural communities, there still remain some challenges that need to be addressed.

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Part IV

Implementing, Evaluating and Sustaining Rural School Mental Health Programs

20 Adapting Crisis Intervention Protocols: Rural and Tribal Voices from Montana

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In 2013, the Montana Office of Public Instruction (OPI) developed a program to systematically address the problem of youth suicide, a significant public health problem in the state of Montana (Michael & Jameson, 2015). Based on recent estimates from the Centers for Disease Control and Prevention (CDC), the prevalence of completed suicides in Montana (23.7 deaths by suicide per 100,000 population) is among the highest in the United States (U.S.), almost double the national average (12.6 deaths by suicide per 100,000 population; Murphy, Xu, & Kochanek, 2013). Although the rankings shift year to year and Montana is not always the highest, the CDC has observed consistently high suicide rates for the last several years in the state, a trend common in Alaska and much of the rural Rocky Mountains (e.g., Montana, Utah, Wyoming, New Mexico, Colorado; Fontanella et al., 2015).

Unfortunately, suicidality is a mental health concern not restricted to Montana's adult inhabitants. The data regarding youth suicide and suicidal behavior is equally disturbing. Since 1993, the Montana OPI has partnered with the CDC to regularly collect, analyze, and report Youth Risk Behavior Survey (YRBS) data from Montana youth. Over the last several years, the data on depression, suicidal thinking, planning a suicide attempt, and self-reported suicide attempts meet and regularly exceed the national base rates for these behaviors. The rate of reporting significant depression (i.e., feeling sad or hopeless for 2 weeks or more in a row) is also higher among Montana youth (26%) than the national average (16%; U.S. Department of Health and Human Services (USDHHS), 2014).

According to the CDC, certain groups in Montana were also at a higher risk of suicide than

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others, a trend that again extended to the younger members of the population. Although American Indians comprise 6% of the Montana population, they account for 9% of the deaths by suicide (Montana Department of Public Health and Human Services, 2015). Similarly, among high schoolers completing the Montana YRBS, the 2013 rates for "feeling sad or hopeless" were even higher among American Indian teens (approximately 35%; USDHHS, 2014) than the general figures reported above. These statistics set the stage for the OPI to develop their own crisis intervention policies and procedures to address the problem of suicide among rural adolescents and American Indian teens in Montana.

In designing and implementing a culturally competent protocol for the Montana public schools, the OPI referenced the Assessment, Support, and Counseling (ASC) Center, a university-school partnership in rural western North Carolina, as a model. Like the Rocky Mountains, including parts of Montana, rural Appalachia (e.g., southwestern Virginia, western North Carolina), home to the ASC Centers, also has higher suicide rates than more populated regions of the U.S. (Singh, Azuine, Siahpush, & Kogan, 2013). In response to the increasingly high number of local youth presenting at risk of violence to themselves or others, the ASC Center clinicians and school staff collaborated to develop a systematic and replicable set of procedures to address these behaviors. Thus, during the 2012–2013 academic year, the Prevention of Escalating Adolescent Crisis Events (PEACE) protocol was developed and first implemented (Michael et al., 2015; Sale, Michael, Egan, Stevens, & Massey, 2014). The purpose of the PEACE protocol was to ensure thorough and systematic evaluation of risk for suicide or homicide for self-, peer-, or school personnel-referred students. It was developed to guide decision-making for treatment, safety planning, and referral based upon level of risk (e.g., green, yellow, orange, red). The PEACE protocol facilitated this process by providing ASC Center staff and school personnel with clear roles, a systematic set of response procedures, and a common language (i.e., color-coded risk levels) to assess and intervene with at-risk youth. Though the benefits of the PEACE protocol have been documented in the literature for youth in the rural schools of western North Carolina (Michael et al., 2015), the feasibility and acceptability of adapting the PEACE protocol in Montana communities was completely untested. Thus, several important constructs were considered as part of the implementation process, including cultural competence, what is meant by the term "rural," and unique barriers to utilizing health services in remote communities.

Cultural Competence

Cultural competence is an appreciation, recognition, and ability to work with people of other cultural groups (Sue, 1998). Sue (1998) proposes deliberation and application of three core aspects of generalizable cultural competence: scientific mindedness, dynamic sizing, and culture-specific elements. Scientific mindedness refers to forming hypotheses, not premature assumptions based on clinician biases, about individuals and using creative and empirical ways to test these hypotheses. By forming hypotheses, clinical inferences can be tested based upon data. For example, a suicidal male client from the southern U.S. may be influenced by a culture of honor and gender role expectations after losing his job, but this is a hypothesis to be tested on an individual level rather than assumed.

Dynamic sizing is a computer term referring to the ability to determine when to generalize characteristics across a cultural group, and when to consider characteristics idiosyncratic and unique to an individual within a group. Too much generalization may result in stereotyping, whereas too much individualization may result in the clinician ignoring group characteristics that affect the individual. Appropriate sizing allows a clinician to avoid stereotypes, while still appreciating the importance of culture. For example, some adolescents from an Amish community may experience stress associated with seeking independence, yet independence may play a very limited role in the stress and mental health concerns of other adolescents from the same community.

Finally, culture-specific elements refer to unique knowledge of a specific culture that may be helpful in tailoring interventions. It is impossible, however, to become an expert in all unique cultures. Therefore, it is recommended clinicians become proficient in cultures adjacent to their community (Keefe, 2005), and employ scientific mindedness and dynamic sizing when faced with both familiar and unfamiliar cultures. Beyond clinician proficiency in their community's culture, it is suggested clinicians collaborate with community members who possess a broad range of skills, local knowledge, and culturally specific expertise to create and modify treatment protocols to reflect community strengths and needs. Rural regions may be a particularly important target of community collaboration with local experts, as each community differs from the next even when sharing demographic similarities (e.g., remote tribal Montana; Owens, Watabe, & Michael, 2013).

In keeping with Sue's (1998) core aspects of cultural competency, the PEACE protocol was first developed through hypotheses formed from interactions with local students (i.e., scientific mindedness). It was also developed with the characteristics of rural western North Carolina in mind (i.e., dynamic sizing), but with input from school staff and consideration of unique local resources, such as the availability of crisis intervention services provided by a regional mental health agency (i.e., culture-specific elements). These programmatic aspects of the ASC Center and the PEACE protocol were developed over time and in the unique rural context where the services were offered. Thus, we had to consider the definition of rurality in Montana prior to any attempt at cultural competence or scaling up the PEACE protocol.

Rurality

Rural, as an adjective, may evoke a wide range of biases, images, and stereotypes, ranging from positive and desirable (e.g., peaceful, picturesque, family-oriented), to impartial (e.g., bucolic, pastoral, rustic, slower-paced), to negative and derogatory (e.g., hillbilly, redneck). Regardless of the connotations inspired, rural areas are often plagued with a higher incidence of mental health concerns, including suicide and prescription drug use (Havens, Young, & Havens, 2010; Park & Lester, 2012; Singh et al., 2013). In defining "rural," however, personal lexicons and mental health concerns are not utilized as defining features. Rather, rural communities are frequently defined in terms of low population density.

The U.S. Census Bureau classifies Urbanized Areas as 50,000 or more people, Urbanized Clusters as 2,500–50,000 people, and rural areas as all other communities. The Office of Management and Budget improves upon this definition slightly, identifying Metropolitan (50,000 or more people) and Micropolitan (10,000–50,000 people) areas, again leaving rural as a default category. The U.S. Department of Agriculture further fine-tunes the definition of rurality by assigning communities Rural-Urban Continuum (RUC; 1, urban/metropolitan; 9, most isolated rural areas) codes based on population and proximity to metropolitan areas. Similarly, the Office of Rural Health Policy attempts to conceptualize rurality on a continuum, utilizing Rural-Urban Commuting Area (RUCA) codes, considering population density and commuting direction and distance to urban areas (Curtin, Cohn, & Belhumeur, 2015). These definitions, however, are flawed in that they utilize arbitrary thresholds and discrete categories to describe a continuous construct. A newer continuum called the Index of Relative Rurality (IRR) promises to improve upon these shortcomings. It measures the *degree* of rurality based on four dimensions: population size, density, percentage of urban residents, and distance to closest metropolitan area (Waldorf, 2006). The IRR, however, still utilizes a categorical scale (0, most urban; 9, most rural) like its predecessors. Ultimately, regardless of the classification used, nearly 20% of the U.S. population lives in rural areas (Mohatt, Bradley, Adams, & Morris, 2010).

Perhaps the reason no model has been truly successful in defining rurality is because no model can effectively capture the unique heterogeneous demographic, economic, and cultural characteristics of these remote areas.

Slama (2004) argued that individuals from rural communities, like other minority groups, vary significantly in terms of their identification with mainstream culture. Furthermore, he urged that three frequently shared aspects of rurality be considered in the context of providing prevention and treatment services: the potential influence of poverty, isolation, and conventional attitudes (e.g., independence, self-reliance). Poverty imposes pervasive and intense effects on a person's ability to obtain health services. Compounding those struggles, poor rural citizens also have less access to employment benefits (e.g., social security, health insurance) due to reliance on small business. They are also more likely to be isolated with fewer services available locally and longer commutes when services are accessed. Fewer people also means less privacy, which worsens common rural conventional attitudes (e.g., not expressing emotions, independence) and intensifies isolation.

Socioeconomic theorists also suggest there may be a difference in the way social networks form and operate in rural versus urban communities. Rural communities are characterized by more frequent and lengthier interpersonal contacts, dynamic dual relationships, and a greater number of kin-based interconnections (Beggs, Hains, & Hurlbert, 1996). Moreover, evidence suggests that individuals in rural areas tend to take on more social roles (e.g., coach, school board member) to allow communities to meet the needs of inhabitants (Barker & Gump, 1964; Schoggen, 1989). Referencing Slama (2004), the ASC Center developed the PEACE protocol as a free resource (i.e., potential influence of poverty) readily available to students during school hours (i.e., isolation). The discrete location of the ASC Center in the front office (along with the more socially acceptable nurse's office and attendance center) was also designed to respect the privacy of students (i.e., conventional attitudes). In addition, graduate students and University clinicians were utilized to prevent dual relationships within the community.

Rural Barriers to Health Services

Additional barriers to utilizing mental health services also plague rural areas and have been conceptualized as falling into three broad categories: availability, accessibility, and acceptability of services (Penchansky & Thomas, 1981). Similar to Slama's (2004) isolation concept, Penchansky and Thomas (1981) identify that beyond general health resources, specialty health and mental health services are often not available in rural areas, leaving local professionals with few referral options for complex presentations. Consequently, it is recommended rural practitioners seek out and include community experts not traditionally associated with mental health (e.g., tribal leaders) to capitalize on limited resources in rural areas. The results of a needs assessment may inform potential partnerships, advise a referral network, highlight additional areas of professional development, and reduce coverage redundancies in a community of few resources (Owens, Andrews, Collins, Griffeth, & Mahoney, 2011).

It is also recommended rural providers obtain trainings that highlight core features (e.g., behavioral activation in the treatment of depression) shared by multiple evidence-based intervention approaches. In addition, rural providers are encouraged to develop a network of colleagues from comparable communities and nearby urban hubs for consultation and/or supervision. University partnerships, if feasible, may be helpful within this context as well. They frequently offer more extensive resources, professional development opportunities, and the potential for incorporating supervised graduate student clinicians into an established network of identified local providers (Owens et al., 2011).

Beyond resource availability, there is evidence that even when mental health services are available they are often underutilized by rural residents, likely due to the accessibility and acceptability of services (Aisbett, Boyd, Francis, Newnham, & Newnham, 2007; Ciarlo, Wackwitz, Wagenfeld, Mohatt, & Selarney, 1996). Driving

time to mental health services, challenging weather and road conditions, limited public transportation, and lack of or limited insurance may make it difficult to access available mental health assistance. Moreover, available services may not be utilized if impractical for rural residents. For example, typical urban outpatient service delivery (e.g., weekly appointments) may be unrealistic for rural citizens grappling with longer commutes to services (Hirsch, 2006).

Furthermore, social stigma and negative attitudes toward seeking help in a small community may render accessible support unwelcome. Family relationships and values play a significant role in health (e.g., diet, exercise, sleep) and help-seeking behaviors, trends that appear stronger in rural than urban communities (Conger, Elder, Lorenz, Simons, & Whitbeck, 1994). Therefore, family stances on the acceptability of mental health services may spread far and wide, impacting the likelihood a given family member will seek help. Rural inhabitants may also be unfamiliar with service options, have difficulty trusting mental health providers, and be concerned about confidentiality, understandable apprehensions given the kin-based nature, low population density, and frequent dual relationships of rural communities (Ciarlo et al., 1996).

To overcome these hurdles and obstructions to treatment, it is recommended providers collaborate with expert community members and local champions to frame assessments, recommendations, and interventions in a way that is acceptable and comprehensible to residents. Involving extended family networks in treatment and highlighting commonalities between a provider and individual client may be additional strategies to decrease negative attitudes and increase access to available resources. Finally, dual relationships may be best addressed proactively by developing a plan with clients to address public encounters before they happen (Owens et al., 2011).

Per these recommendations, the PEACE protocol was collaboratively designed within a unique rural western North Carolina school system with an eye on integrating local community resources. The ASC Center is regularly promoted to new students and parents during orientation. Further addressing the common barriers to seeking mental health services in rural areas (Penchansky & Thomas, 1981), the PEACE protocol is available to all students in each of the regional schools. It is also advertised regularly in the health education curriculum, disseminated brochures, parent and student orientation, faculty meetings, and the school website (i.e., availability). The referral process to the ASC Center is simple, requiring as little as a request for help from a struggling student or a referral from concerned classmate, teacher, staff member, or family member (e.g., accessibility). There have even been several instances of concerned classmates referring their peers based on a post they observed on social media or via a text message. Over the last several years, the PEACE protocol has also evolved into a normative series of policies and procedures (i.e., acceptability) to address students who are at risk.

PEACE in Montana

In adapting the PEACE protocol to rural Montana, the aspiration was to seek buy-in from rural and tribal communities regarding the notion that generalizable tools and efforts could be developed for statewide access and replicability. Each site (i.e., Bitterroot, Prairie View, Fort Peck) that chose to participate received funding to support implementation. Individual sites were given the freedom to utilize their funding as needed to implement the program in a way that worked in the context of their unique site, honoring rural community diversity despite socioeconomic similarity (Owens et al., 2013). In addition to developing site-specific protocols, each site adhered to Sue's (1998) culture-specific elements by honoring youth voice (e.g., students) in their planning efforts. Rural and frontier families were also involved in the design of our new protocols by way of our state's education cooperatives—organizations that respond to student and family needs, oftentimes providing necessary, individualized special education services due to the large number of instructor vacancies.

The OPI reached out to two education cooperatives, including the Bitterroot Valley Education

Cooperative (BVEC) and Prairie View Special Services (PVSS). As theorized, each cooperative proved distinct in their location and surrounding needs. Approximately 50,000 people call the Bitterroot Valley home, an area comprising approximately 2,300 square miles between the Sapphire and Bitterroot mountains of southwestern Montana. Here, the BVEC is not only a special education cooperative, but a dually licensed mental health center, integrating mental health into their delivery of education services. This unique collaboration was one reason the BVEC was approached to participate.

Alternatively, the PVSS is in far eastern Montana and works with numerous communities and schools impacted by the Bakken oil boom, which was quite active when the project initially launched. This geographic region is a particularly vast area where mental health and health services are extremely limited. Regrettably, the PVSS employees spend a significant amount of time driving just to get to schools. PVSS staff offered a critical perspective to rural work through which OPI staff explored the strengths and challenges to implementing broad-based protocols across this expansive rural region.

Finally, the Fort Peck Indian Reservation agreed to become the third pilot site for the proposed protocol adaptation. Fort Peck is one of seven reservations in Montana with a land base and is home to the Assiniboine and Sioux Tribes. Fort Peck was chosen in part because of the tribe's unique ability to provide integrated physical and mental health services in schools and the surrounding communities. Wellness services are facilitated through the leadership of Tribal organization, the Health Promotion/Disease Prevention (HPDP) Wellness Program. The HPDP not only focuses on our target population (i.e., the area's youth), but individuals of all ages. Furthermore, the Fort Peck tribes are already the recipient of federal funding (i.e., a Substance Abuse and Mental Health Services Administration (SAMHSA) Systems of Care grant) which may be incorporated into our individualized protocol for that area.

In scaling up the PEACE protocol within our existing crisis intervention policies and procedures, we first had to enhance our personnel and expertise by hiring an external consultant and three site-based implementation coaches (our main expenditure). We also reallocated and protected the time of our current staff and community champions. Due to our limited time frame and the known differences between our sites, we invited pilot sites to explore individually the utilization of the PEACE protocol as a platform to guide their unique suicide prevention efforts. Acknowledging Sue's (1998) dynamic sizing and culture-specific elements, we adhered to a principle called "local control," meaning local school districts have a lot of autonomy because they know their staff, students, and communities best. Not only does this kind of flexibility support Slama (2004), Penchansky and Thomas's (1981) findings, but we find it is important to rural work.

As described above, the primary aim of the OPI Project was to scale up the existing crisis intervention policies and procedures across three demonstration sites to blend in aspects of the PEACE protocol. The protocol itself was conceptualized as but one example of how schools might consider adapting systems, procedures, and policies to best fit the needs of the local culture given its current assets and resources. The main expenditures for the Project were the hiring of an external consultant, recruiting and hiring three site-based implementation coaches (1.6 FTE's across 3 sites), and the utilization of a current OPI professional's time and expertise in school mental health. Four specific goals were established, including: 1) educating OPI professionals and stakeholders across three identified demonstration sites in Montana on existing protocols for identifying and intervening with youth at risk for suicide; 2) helping OPI professionals assess readiness for potential adoption of modified protocols across the three identified demonstration sites; 3) assisting OPI and demonstration site professionals prepare and potentially implement the salient elements of the modified protocols, depending existing community infrastructure and sufficient buy-in from local opinion leaders and champions in support of implementation; and 4) depending on the extent of successful implementation of salient elements, help OPI professionals set up appropriate evaluation protocols and opportunities for broader dissemination and sustainability across the State of Montana.

A brief summary of the progress towards these four goals is as follows. Regarding the first goal,

community stakeholders, school district personnel, implementation coaches, and administrators convened multiple times, in multiple configurations, across sites to highlight community assets, share local data, and to identify gaps in service in order to address the problem of youth suicide in Montana. Using information gleaned from these meetings, action plans were developed and executed by implementation coaches and key constituents to strengthen existing linkages between schools and communities, administrators and mental health providers, professionals, families, consumers, and systems of care.

Regarding the second goal, it was determined by OPI staff that tremendous variability in readiness for potential adoption of modified crisis protocols existed across sites and that no single crisis intervention protocol was sufficient to accommodate the diversity of cultures or existing resources. Consequently, the development plan for each demonstration site was revised in accordance with the existing assets and challenges of each location. Moreover, implementation coaches were successful in administering youth perception surveys. In two of the demonstration sites, student surveys revealed that the vast majority (>85%) of youth perceived that receiving mental health services was "acceptable," a finding that contradicted our research-informed expectations (Penchansky & Thomas, 1981). Equally important findings from these surveys were that students believed the community had inadequate mental health resources, it was not okay to keep a peer's suicidal ideation a secret, and peers and family were preferred over professionals as an initial source of support.

With respect to the third goal, across all three sites, community champions were identified and each had some amount of protected time to further raise community awareness, develop linkages, create user-friend mental health resources for community consumption, and otherwise increase the capacity of the Montana public schools to address the problem of youth suicide. For example, some of the work products produced by the implementation coach in the BVEC included several excellent web-based resources for community constituents, including families, schools, and local mental health providers (http://www.bvec-mt.org/). In the PVSS, there were successes in helping to develop buy-in and awareness about the value and impact of conducting broad surveillance and providing mental health intervention with the context of rural schools. Consequently, these early efforts led to some implementation successes (i.e., delivery of direct services) in select schools with plans to continue the following school year. In addition, the schools in the PVSS were amenable to reviewing district policies and procedures at the beginning of the 2015-16 year.

Given the existing assets and infrastructure across sites, several tangible products were developed. In two of the sites, modified PEACE protocols were created. In the BVEC, a 3-level assessment algorithm was created to promote a consistent and repeatable set of procedures across people and sites. It resembled PEACE, but was adapted to fit within the available resources in the Bitterroot Valley. Equally impressive, in collaboration with OPI staff, the Fort Peck Tribal Executive Board developed the Assiniboine and Sioux Tribes Crisis Response Protocol. This contribution was the result of many meetings with community members who possessed a broad range of skills and who had the local knowledge and culturally specific expertise to tailor the existing protocol into a product reflective of community strengths and needs.

Ultimately, the success of the project exceeded our expectations. Although the work of Kania and Kramer (2013) was not referenced in Project's rationale, their research on collective impact helps explain why our endeavor was not only successful, but sustainable in each region. According to the authors, collaborative work across multiple organizations may be more impactful at affecting change than the isolated impact of a single organization. Such collaboration often results in natural outcomes rather than predetermined ones. Similarly, the resources and ideas necessary for change often already exist, but have not yet been recognized or combined. The conditions that contributed to our success included a common agenda, shared reinforcement, mutually reinforcing activities, continuous communication, and tangible support. Collectively, we organized our efforts around

a shared vision to decrease death by suicide in Montana by focusing on consistent sources of data, valuing the contributions of others, and maintaining open lines of communication.

The Voices of Montana

To underscore the impact of the OPI Project, the qualitative interview findings were presented based primarily on the actual voices from those in the field, working day to day, translating research and theory into real-life impact. To highlight their efforts, lessons learned, and why particular components were sustained, the following excerpts are the voices from individuals and team members who participated in an effort to memorialize the wisdom and insight of our school-community partners. Over the course of the interview process, major themes emerged, namely how complex and multifaceted rural school mental health is, particularly when aiming for excellence. These interviews also reinforced why working in rural and frontier areas is vastly different from urban settings and is often misunderstood by those accustomed to working in denser population centers.

Many of these themes have the potential to challenge ideas and theories related to research, what works, and the nature of implementation fidelity. For instance, our findings suggest rural work may challenge the conventional idea that professionals with advanced degrees are the only individuals "qualified" to intervene or be a helper during a time of crisis. In support of our nontraditional idea, BetterEvaluation, an international collaboration to improve evaluation practice and theory, cautions against designating an idea, such as only utilizing formally trained professionals as helpers, a "best practice" (Patton, 2015). The connotation in such a phrase is that there is a definitive and singular way of doing something "best" across all contexts. This suggests context doesn't matter, but as we have discussed at length, environmental differences, such as those distinguishing rural from urban communities and rural communities from one another, matter. Instead, BetterEvaluation suggests avoiding hyperbolic terms, utilizing qualitative data to capture diversity, and focusing on the idea of multiple solutions to a problem (Table 20.1).

Table 20.1 Exemplars of a Multifaceted Approach

Exemplar	Theme
"Montana has implemented suicide prevention strategies in the past but the rate continues to rise. I really wanted to focus on looking at, are there new or different strategies rather than essentially trying the same things that have been tried or trying them harder?"	No "Best Practice"
"This work involves the entire community. It is not restricted to just schools."	No "Best Practice"
"We also learned that each of the schools on the Fort Peck Indian Reservation have different protocols on how we deal with them and how they deal with the Fort Peck Tribes."	No "Best Practice"

This multifaceted approach also contributed to our ability to gradually expand our project volume. For instance, we could increase capacity by addressing bullying as a suicide-adjacent problem. Our staff also suggested we could expand our efforts by addressing suicide via community councils and our jail system, in addition to our schools. Finally, our feedback supported the popular description of suicide as a taboo topic and the empowering effects of encouraging discussion (Table 20.2).

In each of our sites, intentional family and community involvement was also discussed, particularly in the context of being solution-focused. When a suicide completion takes place, especially that of a young person, families and communities are often impacted most, more so even than schools. From our research we learned that in rural areas, families are deeply connected to one another within the community. And in times of crisis, it is so often the presence of the community who wraps around the family rather than the school. Therefore, parental involvement may be an effective suicide prevention technique within our schools (Table 20.3).

One aspect of working in rural and tribal communities that can easily be overlooked, yet is imperative, is flexibility. Flexibility in our work means being creative. A dominant theme that

Table 20.2 Exemplars Inspiring Increased Project Capacity

Exemplar	Theme
"Kids really brought up this idea of bullying across schools."	Bullying
"There is a suicide prevention community council that gets together … and talk[s] about what the community is doing to prevent suicide and that's broader—not just children and schools."	Multiple perspectives
"Even some new innovative things are being done within our jail system where the organization is going in and interviewing people that are potentially at risk for suicide and responding."	Multiple perspectives
"First create some level of empowerment, like there's something that can be done about this taboo issue. Let's talk about it rather than being kind of helpless."	Taboo
"We are going to continue to build bridges with the schools. This is a good process. When it comes to suicide, it is such a taboo topic. People want to push it aside and don't want to make a mistake. We build these bridges and it enables us to bring this all together."	Taboo

Table 20.3 Exemplars Advocating Family and Community Involvement

Exemplar	Theme
"It's great that you're doing this work in schools, especially with kids, but we would like as a school district to organize something next year to have a parent night where we provide this education to parents."	Parental involvement
"There is this huge gap of parents … not knowing what to look for, and I think to some degree, not hearing the things that are stated because they filter what we talk about through the lens of, 'Oh, this is a phase, it's part of development,' and not really approaching children where they're at."	Parental involvement
"Over the holidays we are going to do a basketball game. In the past we have set up a booth to give a handout to share what else is going on. Native Americans, we love basketball."	Parental involvement
"I think bathroom stall news is a way to involve parents; the information gets to the parents directly, or indirectly."	Parental involvement

surfaced from these interviews was the savvy our staff employed to do their jobs with severely limited resources. This included having limited time to see too many patients, driving a long way to deliver services, and having limited access to trained therapists. Considering these gaps, providers had to draw from Better Evaluation's recommendations (Patton, 2015) and work within the culture of rural and tribal Montana rather than reaching for a "best practice" (Table 20.4).

Relationships are one of the most critical components of working effectively in rural and tribal communities. In fact, previous professional relationships ultimately allowed us to reach out to the BVEC, Fort Peck Tribes, and the PVSS as pilot sites. Relationships are also key to planning a safety net for youth in times of crisis. While this "net" can include professionals with advanced degrees, this is not always practical in rural areas. A systematic review of gatekeeper training suggests that "family and friends may be best suited to act as gatekeepers based on their close relationship with those at risk for suicide" (Isaac et al., 2009; Table 20.5).

School climate is also critically important to launching a successful program. In Montana, our climate is dictated by the public health framework: positive behavioral intervention and supports (PBIS) and the multi-tiered systems framework (MTSS; tier I, universal; tier II, targeted; tier III, individualized). School climate can be challenging to address for a plethora of reasons. Namely, it can be frustrating and difficult to address the entire school before being able to help a few individuals. Current school policies must be considered and oftentimes educators and other school personnel need to be involved, which can be difficult given the abundant of demands on their plates already. Developed programs must then be advertised and incorporated back into the school climate (Table 20.6).

Table 20.4 Exemplars Encouraging Flexibility

Exemplar	Theme
"Over the course of our work together, we developed the Creator Games… One of the things that really came to light was our horse intervention… Some of the mental health professionals said individuals would not open up… However, all of a sudden when they stood by the horse, they were able to open up and share the woes of what is in their heart."	Culture-specific elements
"Being a part of the school system, we were responsible to address suicide as best we could. One of the things we did was to invite our spiritual leaders to the table. All that happened: prayer, sacred songs were sung, there was smudging and ceremony."	Culture-specific elements
"Other parts of Montana [have] many other resources available. Like, in the clinic, … I've only taken patients for 5 months. Because you get so full you can't get new patients but the need is so severe. And the training, the number of trained people, we just don't have them."	Limited resources
"There isn't a licensed professional counselor in the community."	Limited resources
"Often times, particularly with the layoffs of families and the transitory-kind of environment that some of the kids are in, how are they going to afford [services]? And do they have insurance?"	Limited resources
"One of the things I think was pretty helpful was that even though my practice was closed the administrators in two schools knew that if they needed a kid to get into see me that I would open my practice to them as part of this grant."	Limited resources

Table 20.5 Exemplars on the Importance of Relationships

Exemplar	Theme
"We can be the poorest person in the world. If we have a relationship with our parents, it will help."	Extended safety net
"We have youth at-risk raising themselves and they are the ones who have [suicidal] ideation. They are telling their friends and their friends are burdened with this information."	Extended safety net
"I always received calls from their school counselor and their principal about students. I also received calls from the superintendent and from another school we weren't working in who had a couple of at-risk kids. Those schools didn't get everything they needed, but at least they had somewhere they could call."	Important connections
"I think having that rapport allowed huge opportunity to overcome many obstacles."	Important connections

Table 20.6 Exemplars of Influence on School Climate

Exemplar	Theme
"One way I addressed universal efforts is providing in service training for teachers and education about mental health and suicide to school staff."	Direct
"I think you need reminders around, so setting posters up around the school is something I shared."	Direct
"I've talked about assemblies and that was one thing that was really in the feedback from students that they expressed wanting more awareness and education about issues related to suicide."	Direct
"I think you can develop a comprehensive program … that ties these different components into PBIS and … tier 1, 2, and 3."	Direct
"We talked about the material being delivered indirectly… I have probably three or four students who are gay and coming out of the closet and there is a need for some information about acceptance of their needs."	Indirect

The concept of sustainability is likely one of the most discussed components of any pilot, grant, or demonstration project. Understandably investors want to know their money has been allocated wisely toward sustainable projects that will outlast their initial investment. Oftentimes the term "scaling-up" is used, meaning that when a preliminary project is completed, it can be shared and implemented broadly. This, however, can sometimes be an unrealistic expectation, particularly among unique rural communities where a success in one area may not necessarily generalize to success in others (Owens et al., 2013). Furthermore, the constraints normally imposed upon the award of funding (e.g., timelines, number of people served) may be more impairing in a

Table 20.7 Exemplars Supporting Sustainability

Exemplar	Theme
"We now have a protocol for responding to when there's a threat of suicide and another for when a suicide has taken place… I adopted it with one school district and then we developed a protocol for their school and made more of a generic template that other schools could use."	Generalizable protocols
"Getting people on board with a formalized policy and having a written protocol had really positive reception. I think it seems like a straightforward concept. And I think it was a relief for a lot of people in the mental health field. It becomes more of a collaborative effort."	Formalized policy
"One thing I figured out over the course of this project is there's a natural capacity for education to happen for kids with suicide prevention around health classes. And so what I had done as part of this project and thinking about what would be helpful in terms of sustainability was to develop some curriculum related to mental health and suicide prevention that a health teacher would feel comfortable implementing. And so I met with multiple health teachers to talk about this and to get their feedback about what was helpful, what's not helpful, what they feel comfortable with, what needs they feel are there."	Generalizable protocols
"Having learned the Schools' protocols has opened many doors and helps us to constantly grow and evolve into something that is moving to economic sustainability. When we reach economic sustainability for our program, we can truly speak about preventing youth suicide and we can move to a larger scale of program administration."	Generalizable protocols

Table 20.8 2014–2015 Youth Voice Data

Item	Agree (%)
Teenagers want to solve their own problems when having thoughts about suicide	69
If a teen had thoughts about suicide, who would be the best people to encourage them to talk to?	
Friend	34
Parent	24
Mental health professional	22
Teacher/coach	9
School counselor	5
Other family member	5

rural context given the barriers to seeking and delivering health services in these areas (Penchansky & Thomas, 1981).

In the context of this project, we had 24 months from the time funding was allocated to the time funding ended. It took us as a state agency several months just to agree on how we would like to allocate and focus our limited one-time funds and then decide who might be willing to partner with us. The end goal was to have a few pilot sites that would have policies, procedures, and protocols in place that could be shared with other schools across the state of Montana. Despite these challenges, our pilot sites used their knowledge of their surroundings and creativity to create lasting adaptable protocols (Table 20.7).

Finally and perhaps most overlooked is the underutilized intervention of involving young people in change, especially in a school or community setting where the deliverables impact teens directly. For instance, data from our pilot sites shows that the first person a young person would encourage a teen contemplating suicide to talk to is a friend, not an adult (Table 20.8).

These responses underscore the argument that we need to be working with our young people as partners to develop solutions, not relying on adults solely to solve the problems of a younger generation. Though each site approached youth voice uniquely, all our sites have invaluable insight to share and teach us about involving young people into our work (Table 20.9).

Conclusion

Montana, like many rural parts of the U.S., is plagued by youth suicide rates much higher than the national average (USDHHS, 2014). To

Table 20.9 Exemplars Supporting Youth Involvement

Exemplar	Theme
"Through the data collected from the youth, I developed a friend to friend protocol. We learned that peers are most likely to tell their friends if they are in need of help or in crisis."	Youth involvement
"Our suicide and crisis response work has taken on a life of its own. Today we are taking our quest for answers on this crisis to the youth, getting their voice and coming up with a lot of answers. This is where the answers are, they are with the youth. We know the issues. We know and hold the answers. The youth are excited about involving each other and being included."	Youth involvement
"We are sponsoring a lot of activities so the youth will attend. As much as we want to put youth into a box, the most important thing is the youth need to feel a sense of belonging and to feel safe."	Youth involvement

address the problem, the Montana OPI adapted the PEACE protocol, a systematic tool for evaluating suicide risk and guiding subsequent decision-making, from a university-school mental health partnership in comparably rural western North Carolina. From this process, we at the OPI learned two very important lessons. First, we identified several landmark theories that should be consulted by any practitioner before engaging in rural clinical work. Second, we generated a collection of generalizable principles from our own qualitative research on protocol adaptation that may guide future "scaling up" attempts in rural areas.

In selecting the PEACE protocol and planning its implementation in Montana, we learned the value of cultural competence (Sue, 1998) in being scientifically minded, avoiding stereotypes, and honoring culture-specific practices. These principles allowed us to identify a protocol that worked within its culture of origin (i.e., rural western North Carolina) and successfully modify it to suit the culture of rural tribal Montana. We were also able to anticipate many of the hurdles of working in a rural versus urban area by referencing the work of Slama (2004) and Penchansky and Thomas (1981). We learned that isolation can both deepen conventional attitudes (e.g., social stigma toward help-seeking) and pose physical challenges to utilizing health services (e.g., distance). Poverty also creates an additional financial barrier to seeking help, as does the paucity of available services in isolated areas. Knowledge of these predictable obstacles enabled us to plan a school-based intervention that was free, easily accessible, and more socially acceptable than conventional means of seeking mental health services.

Following implementation of three culturally sensitive protocol adaptations throughout our pilot sites, we interviewed our team members to learn more about the strengths and weaknesses of our efforts. What we learned can be readily generalized to future efforts at "scaling up" or adapting a protocol, or simply beginning new work in a rural region. We learned first and foremost that there is no such thing as a "best practice" particularly when working in a culturally competent manner in a unique rural setting (Patton, 2015). Rather, we had more success with a multifaceted approach that enabled us to identify new areas of need (e.g., bullying) and expand our efforts within each demonstration site. We also learned the critical influence of families and the importance of honoring community champions in addressing an issue as pervasive and complex as youth suicide. While we worked primarily from the perspective of the school, it quickly became apparent that friends and family were regularly seen as primarily sources of support and guidance in times of crisis, and thus those human assets should be incorporated more fully into safety planning.

Confirming what we learned from our preliminary research on the effects of isolation and less available and accessible resources (Penchansky & Thomas, 1981; Slama, 2004), the qualitative interviews emphasized the need to be flexible and creative with limited resources. We also learned the value of working within the school climate and emphasizing youth input to create a sustainable program with formalized policies, generalizable

protocols, and the endorsement and acceptance of local teens. These data solidified our appreciation of Kania and Kramer's (2013) principle of collective impact—that we are more effective when working together than apart and that the resources necessary for change (e.g., protocols, youth voice) already exist but have not yet been recognized or implemented.

As a collective group of authors, professionals, concerned citizens, and local champions, we sincerely hope that the lessons documented in this chapter will impact future clinical endeavors in rural areas, particularly those in the school system. Rural areas are challenging, unique, and demand cultural sensitivity and adaptation on the part of the practitioner. With this new learning in mind, we will all continue to connect concepts and build bridges we did not know were possible.

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Evaluating School Mental Health Programs

21

Brandon K. Schultz, Clifton Mixon, Anne Dawson, Craig Spiel, and Steven W. Evans

A vital component of school mental health (SMH) programming is *program evaluation*, which is the process of assessing how well SMH services meet local needs. SMH evaluators are interested in the value of a program while taking into account available resources and local goals, primarily to provide feedback to stakeholders (Wholey, Hatry, & Newcomer, 2010). But unfortunately, high-quality program evaluation is difficult to achieve (cf., de Anda, 2007; Rones & Hoagwood, 2000; Weist, 2005). In this chapter, we examine program evaluation from the standpoint of rural school practitioners (e.g., school counselors, school psychologists, consulting clinical psychologists). We contrast our topic with school-based research, which is commonly conducted by outside experts who investigate specific treatments or disabilities to advance a broader knowledge base. Program evaluations, on the other hand, are local audits that are typically not intended to speak beyond the evaluation setting.[1]

SMH program evaluation introduces procedural challenges that are unlike those commonly encountered by school-based researchers. For instance, SMH referrals can reflect the entire spectrum of child mental health needs (Farmer, Burns, Phillips, Angold, & Costello, 2003), requiring evaluators to examine outcomes across a wide range of referral questions. Evaluators might also examine the impact of multiple, unrelated interventions to assess whether their combination reduces the need for costlier services (i.e., program accountability). For such reasons, evaluation is not synonymous with research, although one might inform the other.

If it is assumed that published SMH effectiveness studies indirectly reflect program evaluation, the findings would be a cause for concern. Even though most research studies in the schools are conducted by experienced researchers, outcomes are often mixed or even disappointing (e.g., Hoagwood & Erwin, 1997; Kimber, Sandell, & Bremberg, 2008; Peltonen, Qouta, Sarraj, & Punamäki, 2012; Watabe, Stewart, & Owens, 2013; Wei, Szumilas, & Kutcher, 2010).[2] Research conducted in rural schools is particularly discouraging due to methodological weaknesses and

[1] It should be noted that some emerging research paradigms based on evaluator-researcher collaboration blur this distinction (e.g., practice-based evidence; Kratochwill et al., 2012).

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[2] Our list of examples is far from exhaustive. Many effectiveness studies find statistically significant results, but the effect sizes are smaller than those found in efficacy trials. When taking into account that these studies are often well-resourced, it seems safe to conclude that real-world programs yield even smaller effects on average.

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inconclusive findings (Arnold, Newman, Gaddy, & Dean, 2005). For such reasons, new efforts are underway to identify the factors that prevent efficacious treatments from working in real-world settings (i.e., implementation science) (Cook & Odom, 2013). Likely barriers include competing staff responsibilities, logistical issues, and a lack of educator support (Langley, Nadeem, Kataoka, Stein, & Jaycox, 2010), but clearly these same factors can complicate program evaluation as well. We believe the field is overdue for a revolution in program evaluation science to advance training and methodology in this misunderstood and often overlooked aspect of SMH.

In this chapter, we discuss professional standards and measurement concerns in the evaluation of rural SMH programs. We do not treat rurality solely in cultural terms because there is a lot of variability from region to region, but there are economic and organizational concerns that are important to consider in the context of program evaluation. Unlike their urban and suburban counterparts, rural practitioners cannot easily consolidate resources to achieve an economy of scale (cf., Chakraborty, Biswas, & Lewis, 2000), so a relatively large proportion of resources go to redundant services across schools. Whereas a large school district might pool resources, rural school teams often need to develop procedures independently and with fewer contributors. Thus, we focus our discussion on the components of program evaluation that rural evaluators working in small groups might find most challenging. In instances where program evaluation concerns apply more broadly, we point readers to several helpful resources and keep our comments brief. We then conclude this chapter by offering our thoughts for how to improve the evaluation of rural SMH programs based on over a decade of experience collaborating with diverse rural schools.

Standards for Program Evaluation

Program evaluation is not unique to school mental health. In fact, there is a rich history of program evaluation in many applied settings, resulting in widely accepted and readily applicable standards of practice. Although a complete review of these standards is beyond the scope of this chapter (see Yarbrough, Shulha, Hopson, & Caruthers, 2010 for a comprehensive discussion), we examine utility, feasibility, and accuracy standards, with an emphasis on the challenges that can cause rural SMH evaluations to fall short.

Utility Standards

To meet the needs of stakeholders (e.g., teachers, parents, students, community leaders, taxpayers), it is vital to ensure that evaluation outcomes are relevant and relatable. Utility standards for program evaluation pertain to the usefulness of the evaluation data (Yarbrough et al., 2010). In the evaluation of mental health programs, stakeholders will clearly want to know whether the program reduced morbidity, and perhaps improved safety in the setting. However, in rural communities, mental illness generally has greater stigma than in urban and suburban settings (Hoyt, Conger, Valde, & Weihs, 1997; Jones, Cook, & Wang, 2011), so evaluation outcomes that emphasize mental health labels could discourage participation due to the relative lack of anonymity in small communities. At the same time, typical barriers to accessing child mental health care in rural communities, such as a lack of transportation, scarcity of community-based mental health care providers, and a lack of health insurance, might be circumvented by SMH services (Owens, Andrews, Collins, Griffeth, & Mahoney, 2011). Thus, the challenge is to communicate the potential benefits of a SMH program, and at the same time avoid issues that might discomfit families, educators, and other stakeholders.

In our view, rural SMH evaluation is strengthened when evaluators measure outcomes related to client functioning—particularly school-related functioning—while avoiding potentially stigmatizing mental health labels. Outcomes related to children's disorganization and attention problems, for example, provide information that is more helpful to rural families than a measure of "ADHD." Similarly, a program that improves grades by helping students overcome procrastination and

distraction may speak more effectively to rural parents than a program for adolescents who are "depressed." By shifting away from stigmatized labels, program outcomes may become salient for rural families and educators (Owens et al., 2011).

Similarly, some stakeholders might expand the definition of SMH program success beyond academic or attendance outcomes to include student safety. School administrators and school board members in particular are often interested in seeing tangible reductions in student disciplinary actions. Although disciplinary actions predict long-term unwanted outcomes (e.g., Walker, Steiber, Ramsey, & O'Neill, 1993), these data can be problematic because schools rarely standardize the reporting systems. The lack of standardization may be a particular problem in rural schools (e.g., Michael et al., 2013), given the remoteness of some schools relative to others. In the interest of utility, evaluators might need to help teachers standardize the office referral process to provide valid and reliable answers to these questions over time. Without standardized definitions, stakeholders from different disciplines and backgrounds can have the experience of using different terms to describe similar concepts—a phenomenon that interdisciplinary teams often lament.

Feasibility Standards

Feasibility standards promote the efficiency of program evaluation, in part by assuring practicality and cost-effectiveness (Yarbrough et al., 2011). In rural settings, the feasibility of evaluation can be a concern due to limited resources. In our experience, there are limited options in rural settings for staffing and funding evaluation efforts. We have found that rural school administrators are hesitant to invest in new programs due to initial cost concerns, and then when existing programs become widely accepted, practitioners are hesitant to invest additional time and resources to evaluate their outcomes.

Beyond resource concerns, many SMH practitioners do not know how to demonstrate program effectiveness without expert help. School counselors, for example, receive little formal training in program evaluation beyond service recording (e.g., the number of counseling sessions provided) (Astramovich, Coker, & Hoskins, 2005). At the same time, stakeholders have a right to know that SMH practitioners are meeting their fiduciary responsibilities as a condition of continued investment (Poirier & Osher, 2006). Thus, evaluation costs are as integral a component of SMH programs as staffing and material costs, even though evaluation costs can take resources away from service provision. For this reason, we believe that feasibility concerns pose some of the greatest challenges for rural SMH evaluation. For program evaluation efforts to advance it will be vital for evaluators to make use of affordable measurement tools (see Instrumentation section below); but perhaps more importantly, it will be vital to demonstrate the long-term cost savings when children receive effective mental health care in the schools. If evaluators can clearly demonstrate student benefit and cost-effectiveness, stakeholders in rural areas will likely find SMH initiatives desirable.

Accuracy Standards

Accuracy standards relate to the need to ensure that the conclusions based on the evaluation data are justified (Yarbrough et al., 2011). One of the most important considerations in evaluation accuracy is *treatment integrity*, defined as the degree to which programs are implemented as intended (Schulte, Easton, & Parker, 2009). Outcomes can be compromised and the quality of the outcome evaluation can be weakened when integrity is poor (Durlak & DuPre, 2008). Even high-quality outcomes evaluations reflect the effectiveness of the program as delivered rather than as it was intended. If, for example, a Daily Report Card intervention (DRC) is implemented only intermittently rather than on a daily basis, the impact is likely to be weakened (Owens, Murphy, Richerson, Girio, & Himawan, 2008), but it would be a mistake to conclude that the DRC is useless. Thus, we must evaluate the *process* of intervention, and treatment integrity measures speak to these concerns. Poor integrity

might explain why some efficacious programs fail when implemented in naturalistic school settings (Atkins, Fraizer, Adil, & Talbott, 2003).

Although published effectiveness studies in rural schools are rare, two findings in Appalachian public schools have implications for achieving evaluation accuracy. First, Owens et al. (2008) examined evidence-based practices in rural elementary schools using a naturalistic referral process rather than participant recruitment. The researchers included measures of treatment integrity in their study, including both dosage and adherence indicators. In terms of dosage, the number of sessions attended and the number of days the teachers collected intervention data were assessed. In terms of adherence, the clinicians rated how well the home-school component of the intervention included parents' adherence to home-based procedures. The results suggest that teachers and parents implemented the interventions with acceptable (albeit imperfect) integrity, thereby providing support for the accuracy of the results (Owens et al., 2008). In other words, the authors could safely conclude that their results spoke to the efficacy of the intervention as designed.

Second, Albright and Michael (2013) evaluated a SMH program (Assessment, Support, and Counseling (ASC); Albright et al., 2013; Michael, Wandler, & Quick, 2010) in rural high schools that also responded to real-world referrals rather than participant recruitment. To evaluate the accuracy of their results, the researchers recorded dosage variables similar to Owens and colleagues (e.g., number of sessions), but also included client ratings of the clinicians' effectiveness. Client ratings of the clinicians taken at treatment termination provided some evidence that the program was directly targeting client needs as they perceived them, which in this case were mostly crisis intervention needs. In effect, the client ratings spoke to the clinician's competency in addressing mental health needs, which is important to ensure client buy-in.

Taken together, these studies suggest that the accuracy of program evaluation can be improved through adherence and competency measures including service tracking, permanent products, and satisfaction ratings. Program evaluations would clearly benefit from integrating similar measures, but other integrity strategies used in effectiveness trials may be less useful. For example, researchers often create manuals for their treatments to ensure adherence to a set protocol of interventions, but this may not always be a realistic option in referral-based SMH programs. Albright and Michael (2013), for instance, describe their treatments as including cognitive-behavioral therapy, crisis intervention, and school consultation, but due to the variety of referrals, manuals for every service proved infeasible. SMH program evaluators are likely to face this same challenge (see also Albright et al., 2013; Michael et al., 2013).

Assessment Strategies

Next we turn our attention to assessment strategies, which are the specific techniques used when collecting data during the evaluation process. Much is known about best practice assessment because the techniques are similar across treatment research and program evaluation. Still, given the challenges faced when evaluating SMH programs, it is vital to consider the standards outlined above. Even valid and reliable measures could have limited utility, for example, if the costs are too high or if the constructs measured do not convey meaningful results to stakeholders. For this reason, our assessment recommendations integrate the aforementioned evaluation standards—utility, feasibility, and accuracy standards—throughout.

To begin, it is important to think strategically about the purpose of a program evaluation. Aligning this purpose with the goals of stakeholders can be critical to assuring the relevance of the findings, but ensuring that the measures and methods selected adequately address the purpose will further increase the relevance of the evaluation. Errors in these initial decisions can be costly. For example, we are personally aware of a community mental health agency that was contracted to provide SMH services in a rural school district. As part of these efforts, the service provider was required to perform a program evaluation in the first year that was to be considered by the school board prior

to renewal for the following year. The service provider kept track of the number and length of sessions with students, as well as satisfaction data collected from teachers at the end of the year. At the board meeting, the service provider reported contact with large numbers of students at every school and data about the number of sessions per student. In addition, they provided quotes from teachers who said positive things about their services. Nevertheless, none of these data spoke to whether the services benefitted students, as was noted by one of the school board members. No data were collected from or about students, and the perspective of parents was ignored. Having nothing other than service records and teacher quotes upon which to base their decision, the school board cancelled the contract. We believe that these events highlight the importance of understanding the goals of the program and considering the choice of questions with the stakeholders in the program. As is clear in this example, the purpose of the evaluation guides the choice of outcome domains and sources of information, consistent with the aforementioned evaluation standards.

Outcome Domains

In a review of SMH effectiveness studies, Rones and Hoagwood (2000) identified three outcome domains that might prove useful for program evaluation depending on the purpose of the evaluation: symptoms, functional impairments, and service usage (e.g., special education).

Symptoms. Most psychiatric disorders and other conditions of interest to school mental health programs are identified and differentiated from each other by the presence of specific symptoms. Symptoms are the observable behavioral features of a disorder, and assessing change in symptoms has been one of the most prominent methods of evaluating outcomes from treatment of mental health problems among youth (Weisz, Doss, & Hawley, 2005). Symptoms also provide a means of identifying youths who present with subclinical manifestations of disorders (i.e., are at risk for developing a disorder) and may still benefit from school-based mental health programs (Angold, Costello, Farmer, Burns, & Erkanli, 1999). Although symptoms have been the most prominent means of evaluating outcomes among youth (Weisz et al., 2005), increasingly researchers are recognizing that narrowly focusing on symptom reduction is insufficient and that outcomes beyond symptoms are needed in order to contextualize results (refer to Utility Standards above).

Functional impairments. Another prominent outcome domain in the treatment research and program evaluation literatures involves the problems (or distress) in daily life caused by symptoms of a disorder, referred to as functional impairment. Impairment is a required feature for the diagnosis of all child and adult disorders in the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-5; American Psychiatric Association (APA), 2013) and represents the impact of the symptoms or disorder on the individual or others. It is often impairment, rather than symptoms of the disorder, that lead to the need for mental health services. In some cases, impairments may be a better predictor of adverse outcomes (e.g., school failure) than a formal diagnosis (Vander-Stoep, Weiss, McKnight, Beresford, & Cohen, 2002) and may therefore be a better measure of treatment outcomes than symptoms alone. Youth who receive mental health services often experience impairment in multiple domains, most notably in academic and social functioning. As we mentioned above, program evaluations can benefit by including measures of change in students' academic and social impairment over time. In terms of analysis, the *reliable change index* can tell the evaluator the degree to which each child's change over time exceeds typical variation, based on the test-retest reliability of the instrument (see Jacobson & Truax, 1991). Similar calculations can be applied to symptom measures, but stakeholders in schools are likely to find reductions in impairment—particularly, academic impairment—most compelling.

Service use. Another important indicator that may be of interest to stakeholders is the use of school or community services following program implementation. A recent report on children's mental health indicates that one in five children experience a mental health disorder each year,

resulting in an estimated $247 billion cost to in terms of treatment utilization, special education, juvenile justice services, and decreased productivity (Centers for Disease Control and Prevention, 2013). It is not surprising that many program evaluations measure use of school and community services related to discipline, special education, mental health, and the juvenile justice system (Rones & Hoagwood, 2000). For example, in their evaluation of Project ACHIEVE, a comprehensive school reform process focused on improving outcomes for at-risk and underachieving students, Knoff and Batsche (1994) measured the number of students referred for special education assessment and the number placed in special education as outcomes. Similar types of service-use measures could clearly be useful in local program evaluations as well, and even seem to be implied as an outcome measure by many tiered prevention models (cf., Walker & Gresham, 2013).

Sources of Information

Several sources of information might be considered when conducting SMH program evaluation, but it may be difficult to determine whose data are most useful, feasible, and accurate. At the outset, it is important to determine if teacher, parent, child, clinician, observation, or school records will meet evaluation standards, so we discuss the strengths and weaknesses of each of these sources in turn.

Teacher reports. Teacher reports seem vital to high-quality SMH program evaluations, given the need for assessing school-related impairments; however, teacher reports are generally more accurate for identifying or assessing *externalizing* rather than *internalizing problems*, due to the overt/covert nature of these domains (McMahon & Frick, 2005; Pelham, Fabiano, & Massetti, 2005; Silverman & Ollendick, 2005). For example, teachers may easily observe when a student is refusing to comply with requests or is out of his or her chair (externalizing problems), but not notice when a student feels hopeless or worried (internalizing problems). Thus, we generally recommend prioritizing teacher reports when monitoring externalized concerns and parent or student self-reports (described below) when monitoring internalized concerns. In secondary schools, the use of teacher reports is further complicated by the fact that students typically work with multiple teachers during the school day, so it is not always clear which teacher(s) ought to be included. There is some evidence for systematic teacher bias, including the tendency for women and early service teachers to be more severe in their ratings of externalizing disorders than men or more experienced teachers (Schultz & Evans, 2012), so evaluators must use caution when choosing, or weighing disagreements among, several teacher reporters.

Parent reports. Professional recommendations for child and adolescent assessment include the use of parent report for *both* internalizing and externalizing disorders (Hunsley & Mash, 2007). Parent report is important to assessing for childhood problems because parents are typically involved in children's day-to-day lives, making them informed reporters. Parent reports are also important because children may not be reliable when reporting the temporal sequence of their problems (Klein, Dougherty, & Olino, 2005). Thus, collecting parent reports can greatly inform outcome assessments of SMH programs, but there are some limitations. For example, parent psychopathology can bias these reports and we can reasonably expect such concerns in many SMH cases. As a case in point, it has been demonstrated that mothers with depression overreport symptoms of ADHD (Pelham et al., 2005) and depression in children (Klein et al., 2005). As a result, program evaluation cannot safely rely on these reports alone, and teacher ratings might be used to confirm or supplement parent data.

Child self-report. In general, child and adolescent self-reports are less reliable for externalizing problems as compared with internalizing problems. Children and adolescents with behavior disorders often underestimate aggressive behaviors, symptoms, and overall impairment when rating themselves (McMahon & Frick, 2005; Pelham et al., 2005). But self-reports can be useful when assessing outcomes related to covert forms of conduct problems, such as drug use, risky sex, and dangerous driving behaviors. For

internalizing problems, such as anxiety and depression, child and adolescents self-report can be more valid than either teacher or parent report. One caution regarding self-report of internalizing problems is that some groups of children and adolescents (e.g., younger children, African American, and Hispanic American youths) may be more likely to minimize problems, a bias sometimes referred to as *social desirability* (Silverman & Ollendick, 2005).

Clinician report. In some instances, evaluators might be tempted to have clinicians and interventionists report their impressions of outcomes, particularly when other information is missing or otherwise unavailable. The potential for bias in these reports is obvious, particularly when evaluations affect resources, but there are instances where clinicians can provide context for other evaluation outcomes. For instance, clinician report of the therapeutic alliance can predict outcomes to some degree (Elvins & Green, 2008; McLeod, 2011). As such, clinician alliance ratings can lend support for treatment competence, consistent with accuracy standards (assuming adequate validity and reliability). Clinician reports have also been used to measure how well parents have followed through with aspects of intervention. For example, Owens et al. (2008) asked clinicians to rate parent adherence to a home-school collaborative intervention, but the accuracy of these data was unclear.

Multiple informants. Given the potential for source biases, multiple-informant assessment is widely recommended, but inter-informant disagreement is common (Achenbach, McConaughy, & Howell, 1987). SMH practitioners often grapple with how to integrate the differing reports, understanding that disagreement between raters does not necessarily mean that the reports are invalid. Differences between raters could be due to differences in tolerance for child and adolescent behaviors or differences in how students behave across situations. Thus, variations in report across informants could offer valuable insight into target behavior, but potential rater biases still need to be considered.

Several suggestions for integrating reports from multiple informants can be found in the literature (Klein et al., 2005). One strategy is the "or" rule, which assumes that a behavior is present if it is reported by any informant. Alternatively, there is the "and" rule, which requires at least two informants confirm an observation. A third approach that more closely resembles clinical practice is the "best estimate" strategy, which relies on clinical judgment to integrate varying reports from informants. Although the "best estimate" strategy can introduce clinician bias, there is some evidence to suggest that the reliability of this estimate can be high (e.g., Klein, Ouimette, Kelly, Ferro, & Riso, 1994).

Direct observation. Systematic direct observation (SDO) typically involves observing students in their normal environments (e.g., classrooms) to assess changes in behavior. SDO can lead to accurate and contextualized measurement of behaviors that cause impairment, but observations often require significant staff resources (i.e., training, time) and often have limited reliability and generalizability without repeated observations (Hintze & Matthews, 2004). These concerns can render direct observations infeasible for large numbers of students. Moreover, low-frequency behaviors (e.g., physical aggression) are poor targets for SDO because the observer may not see the behavior of interest. Still, SDO of academic (e.g., off-task or disruptive behavior) and social (e.g., withdrawal) behaviors can provide important information about changes in student behavior over time.

Existing school data. Existing school data (e.g., grades, disciplinary referrals, attendance, and gradebook data) are attractive because of availability, relevance, and freedom from biases caused by social desirability, parent psychopathology, or evaluator judgment. For these reasons, existing data can serve as a convenient and valid outcome measure of SMH programs in some instances. But there are limitations because these data generally do not specify the duration, frequency, or intensity of specific problems (Riley-Tillman, Kalberer, & Chafouleas, 2005). There can also be questions regarding the reliability and validity of existing school data. For example, grading policies can vary across teachers or school districts and grades are influenced

by external social influences such as poverty and other major life stressors. Given these limitations, we recommend that evaluators only include school data as part of a multi-method, multi-informant strategy. When multiple sources of information support the same conclusion, evaluators can have confidence in their outcomes.

Instrumentation

Researchers and program evaluators alike have searched for "generic" measures to assess outcomes for myriad referral questions (Schulte, 2010). Similarly, it would be convenient to identify a General Outcome Measure (GOM; Deno, Mirkin, & Chiang, 1982) for each outcome domain with strong psychometrics and relevance (Walker & Gresham, 2013), but so far generic measures and GOMs have proven elusive. Instead, there are multiple candidate instruments for the various outcomes of interest, each with strengths and weaknesses. The options and tradeoffs can be overwhelming, especially given that instrumentation interjects as much variance into outcome estimates as do the actual treatments (Wilson & Lipsey, 2001). Thus, instrumentation is a critical element of program evaluation that requires careful consideration.

At the outset, evaluators must develop hypotheses about which outcomes the program interventions are most likely to impact, and then select relevant measures for each outcome of interest. It can be useful to also consider possible distal outcomes and measure those as part of this process as well. Distal outcomes can include nontarget symptoms (e.g., reduction in child depressive symptoms after an intervention targeting ADHD), additional functioning measures (e.g., peer sociometric ratings after a social skills intervention), environmental impact measures (e.g., reduction in maternal depressive symptoms after a behavioral parent training intervention), and client satisfaction measures (e.g., parent satisfaction with group parent training). For this reason, treatment research utilizes 12 participant measures on average (Weisz et al., 2005), which is likely to prove unrealistic for rural SMH program evaluations. But by expanding the scope of assessment beyond one or two outcomes, evaluators can gain a comprehensive understanding of treatment outcomes relative to the target concerns, as well as the child's overall level of functioning (e.g., classroom functioning, family functioning).

Table 21.1 provides a brief overview of instruments that can be useful for SMH program evaluation. Given the limited resources available in rural communities, we highlight free instruments that are readily available online. Each instrument listed includes information regarding the class of instrument (e.g., rating scale), source (e.g., parent, teacher), domain (e.g., symptoms, impairment, satisfaction, classroom or family functioning), construct assessed (e.g., depression, academic performance), and age range for which it has been validated.[3] Of course, many more instruments could be useful depending on the needs of evaluators, so readers are encouraged to refer to the treatment effectiveness and program evaluation literatures. Readers needing a more thorough review of the various classes of instruments than is provided here are encouraged to read one of the excellent published reviews (e.g., Pelham et al., 2005; Riley-Tillman et al., 2005). Below we offer brief overviews of some of the instruments highlighted in Table 21.1.

Symptoms. In the symptom domain, instruments generally fall into two categories: broadband and narrowband. Broadband scales measure a wide variety of behavior concerns, generally including both externalizing and internalizing symptoms, whereas narrowband ratings focus on specific concerns, such as anxiety or depression. In program evaluation, we would predict that broadband ratings would prove most useful for the reasons stated at the beginning of this chapter. For example, the Strengths and Difficulties Questionnaire (SDQ; Goodman, 1997) is a 25-item behavioral rating scale that can be used to screen for or progress monitor problems in a number of domains. Parents and teachers are asked to rate the severity of emotional symptoms, conduct problems, symptoms of hyperactivity/

[3]Internet links are available at http://www.oucirs.org/resources/educator&mhprofessional.

Table 21.1 Publicly available measures of symptoms and impairment

Instrument	Class	Source	Domain	Construct	Age range
Academic Performance Rating Scale (APRS; DuPaul et al., 1991)	Rating scale	Teacher	Impairment	Academic performance	6–12
Autism Treatment Evaluation Checklist (ATEC; Rimland & Edelson, 1999)	Rating scale	Parent/Teacher/Clinician	Symptoms and impairment	Autism spectrum	5–12
Brief Problem Checklist (BPC; Chorpita et al., 2010)	Interview	Child/Parent	Symptoms	Global	7–13
Center for Epidemiological Studies Depression Scale for Children (CEC-DC; Weissman, Orvaschel, & Padian, 1980)	Rating scale	Child	Symptoms	Depression	6–17
The Child PTSD Symptom Scale (CPSS; Foa, Johnson, Feeny, & Treadwell, 2001)	Rating scale	Child	Symptoms	PTSD	8–18
Children's Global Assessment Scale (CGAS; Shaffer et al., 1983)	Rating scale	Clinician	Impairment	Global	4–16
Children's Yale-Brown Obsessive Scale (CY-BOCS; Scahill et al., 1997)	Rating scale/Interview	Parent/Child/Clinician	Symptoms	OCD	8–18
Classroom Performance Survey (CPS; Brady, Evans, Berlin, Bunford, & Kern, 2012)	Rating scale	Teacher	Impairment	Classroom behavior	Grades 9–12
Client Satisfaction Questionnaire (CSQ-8; Larsen, Attkisson, Hargreaves, & Nguyen, 1979)	Rating scale	Parent	Satisfaction	Satisfaction with treatment	All
Columbia Impairment Scale (CIS; Bird et al., 1993)	Rating scale	Child/Parent	Impairment	Global	9–17
Disruptive Behaviors Disorders Scale (DBD; Pelham et al., 1992)	Rating scale	Parent/Child/Teacher	Symptoms	DBD	5–16
Hamilton Anxiety Rating Scale (HAM-A; Hamilton, 1959)	Rating scale	Clinician	Symptoms	Anxiety	6–18
Homework Performance Questionnaire (HPQ; Power, Dombrowski, Watkins, Mautone, & Eagle, 2007)	Rating scale	Parent/Teacher	Impairment	Homework performance	Grades 1–8
Hopelessness Scale for Children (HSC; Kazdin, Rodgers, & Colbus, 1986)	Rating scale	Child	Symptoms	Hopelessness/Suicidality	6–13
Impairment Rating Scale (IRS; Fabiano et al., 2006)	Rating scale/narrative	Parent/Teacher	Impairment	Overall	4–12
Pediatric Symptom Checklist (PSC; Little, Murphy, Jellinek, Bishop, & Arnett, 1994)	Rating scale	Parent/Child	Symptoms	Global	3–18
Screen for Childhood Anxiety Related Disorders (SCARED; Birmaher et al., 1997)	Rating scale	Child/Parent	Symptoms	Anxiety	8–18

(continued)

Table 21.1 (continued)

Instrument	Class	Source	Domain	Construct	Age range
Strengths and Difficulties Questionnaire (SDQ; Goodman, 1997)	Rating scale	Parent/Teacher	Symptoms	Global	3–16
Traumatic Events Screening Inventory (TESI-C; Ribbe, 1996)	Interview	Clinician	Symptoms	Exposure to trauma	6–18
Young Mania Rating Scale (YMRS; Young, Biggs, Ziegler, & Meyer, 1978)	Interview/Rating scale	Clinician/Parent	Symptoms	Mania	5–17
Youth Top Problems (TP; Weisz et al., 2011)	Interview/Rating scale	Child/Parent	Symptoms	Global	7–13

Note: Hyperlinks to all of the instruments in this table can be found at http://www.oucirs.org/resources/educator&mhprofessional

inattention, peer relationship problems, and prosocial behavior. As such, the SDQ could be a useful outcome measure suitable for program evaluation purposes.

It is also conceivable that narrowband scales could be useful in evaluation if these measures are targeted to specific referral questions. If the evaluation is stratified by the referral category, for example, narrowband scales might be used for each. There are several examples of narrowband rating scales that could be useful for these purposes. For example, the Disruptive Behavior Disorders Rating Scale (DBD; Pelham, Gnagy, Greenslade, & Milich, 1992) assesses symptoms of a number of externalizing disorders common in childhood and adolescence, including attention deficit/hyperactivity disorder (ADHD), oppositional defiant disorder (ODD), and conduct disorder (CD). Currently the items on this instrument are similar to the diagnostic items found in the DSM.

Functional impairment. Similar to the measures of symptoms, instruments that assess functional impairment can focus on specific domains of impairment (e.g., academic, social) or global outcomes. For example, the Academic Performance Rating Scale (APRS; DuPaul, Rapport, & Perriello, 1991) is a measure completed by teachers to rate a child's academic performance over the past week across a number of subject domains and academic abilities. Sometimes it may be more useful to impact of treatment across multiple domains of functioning or on the overall functioning of a child. The Impairment Rating Scale (IRS; Fabiano et al., 2006) has parents and teachers rate the severity of impairment and need for treatment in multiple areas (e.g., relationships with peers, siblings, parents, teacher; academic performance; self-esteem; and overall) resulting to the child's presenting problems. Overall impairment can also be assessed using rating scales filled out be either the clinician (e.g., The Children's Global Assessment Scale (CGAS); Shaffer et al., 1983) or parent and child report (e.g., Columbia Impairment Scale (CIS); Bird, Shaffer, Fisher, & Gould, 1993).

Systemic outcomes. Beyond measures of symptoms and impairment, program evaluators may be interested in the impact SMH programs have on families and schools. For example, the Parenting Stress Scale (PSS; Berry & Jones, 1995) has been used to obtain parent report on the amount of stress they experience in their role. Although we do not include such instruments in Table 21.1, readers can refer to Pritchett et al. (2011) for an extensive list of family functioning measures that could prove useful in SMH program evaluations.

Conclusion

We have explored the goals of program evaluation and how those goals might be achieved for rural SMH programs. As we have shown, program evaluation is not synonymous with school-based research, which often has expert support, limited foci, and implications for the broader field. Program evaluation, by comparison, is intended to assess whether SMH programs meet the needs and expectations of a local community. Standards for program evaluation guide the practice, but rural evaluators are likely to encounter economic and organizational challenges along the way. We have highlighted several of these challenges in this chapter, but we cannot anticipate all potential difficulties; readers will need to consider the possible roadblocks in their setting when planning an evaluation. High-quality program evaluation requires that utility, feasibility, and accuracy standards are maintained.

Early in this chapter, we claimed that school mental health was overdue for a revolution in program evaluation science. It seems this need has been overlooked partly due to confusion between treatment research and program evaluation. Field-based treatment research has the laudable goal of establishing the effectiveness of a given treatment or program, but we should also recognize that even the most well-established techniques could fail because of setting-specific incompatibilities. That failure may or may not represent a threat to the "evidence-based" status of the treatment, but

it will most certainly have implications for the future of that program in that particular setting. Thus, best practices require that program evaluations are conducted in all localities, regardless of whether the treatments are "evidence-based" or not. Of course, this statement in itself is not revolutionary, but the implications for training are. It is clear from the literature that SMH professionals are largely unprepared to conduct high-quality program evaluations without external support and added resources. If SMH professionals assume that quality evaluations are only conducted by expert researchers, the true impact of local SMH programs will go unexamined. In our experiences collaborating with rural schools, this is certainly the case—SMH practitioners rarely have their programs evaluated. When programs are evaluated, practitioners seem to assume that convenient data, such as service records and client grades, are sufficient to meet the needs of the stakeholders. But as we have pointed out, such data are inadequate for meeting the standards of quality program evaluation. The solution will require fundamental changes to how SMH professionals approach and evaluate their practice.

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22 Active Implementation Frameworks: Their Importance to Implementing and Sustaining Effective Mental Health Programs in Rural Schools

Barbara Sims and Brenda Melcher

An estimated 15 million of our nation's youth can be diagnosed with mental health needs, yet only about 7% of these young people receive appropriate help from mental health professionals (U.S. Public Health Service, 2000) . School mental health programs can improve access to services for children and adolescents, but implementing and sustaining such programs can be a challenging and multifaceted process. Over the past several decades, considerable research, policy, and funding have been focused on the use of evidence-based programs and practices. Evidence-based programs, however, are only effective when fully implemented with high fidelity (Lipsey, 2009; Sanetti & Kratochwill, 2014). Unfortunately, that same focus has not been placed on *how* these programs are implemented. That gap between *identification* of evidenced-based programs and *implementation* of those same programs is critical because students will not benefit from interventions they do not receive.

Implementation can be defined as a *specified set of activities* designed to put into practice an activity or program of *known dimension* (Fixsen, Naoom, Blase, Friedman, & Wallace, 2005). Based on the findings of Fixsen et al. (2005), the National Research Implementation Network developed five overarching frameworks referred to as the Active Implementation Frameworks: Usable Innovations, Implementation Drivers, Implementation Teams, Improvement Cycles, and Implementation Stages. The purpose of these frameworks is to guide the process of implementation from identification of the program through full and effective use of that program. They will support the selection of who will be responsible for doing the work and help identify and appropriately sequence important steps to the implementation process. They additionally guide the use of both implementation and program evaluations in order to determine whether the improvements anticipated were realized, and to know at what point there is enough program support and implementation fidelity to sustain it and to replicate it in other schools or classrooms.

The information in this chapter is intended to help educators and mental health professionals become familiar with these Active Implementation Frameworks and their importance to implementing effective mental health programs in rural educational settings.

Framework 1: Usable Innovations

Selection

Successful implementation of a school mental health program begins with selection of an

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evidence-based program that meets the needs of the population. Careful exploration must take place to consider the needs of the students, the evidence supporting successful implementation of the proposed program, and the readiness and capacity of the community to fully implement the program. By examining district data, researching any available published materials, and contacting professionals already training or using the program, the district can get valuable information in response to questions needed for the selection process such as:

What Do the Data Indicate as the Needs of the Population?

School districts already have access to data concerning a student's family, socioeconomic factors, academic assessments, and disciplinary records. Some districts may use mental health or social-emotional "screeners" for early identification of potential needs. Community surveys and interviews may provide additional insight and there may also be partnership agreements with local agencies that allow for sharing of information in order to best match needs with services. Collecting and analyzing this kind of data can support the identification of the most critical needs of the rural district in order to optimize its resources.

Is the Proposed Program a Good Fit with Our School and Our Community?

By exploring what is already being done in the school and community, the district can create a resource map. This will identify what is already provided and what may be missing. The discussion that occurs regarding these existing supports and gaps in service gives an opportunity to see what role this new program would fill and how much more would have to be done to implement it.

What Are the Necessary Resources to Support Full Implementation of the Program?

The district needs to know what must be provided as supports for the new program to be successful. Details regarding what fiscal and human resources and the time commitment that will be required will inform the district whether the program is even a potential consideration.

Is There Sufficient Evidence for the Desired Outcomes of the Program?

Before selecting a program, important factors for consideration include how effective the program was when implemented in other sites, how wide the implementation sample was that led to the development of this program, what evidence was used as an indicator of success, and how similar that situation was to this district.

Has the Program Been Successfully Replicated in Other Districts and Communities?

Consideration should be given to the likelihood that a program could be successful in the local district and community. Confidence in that success could increase if the program under consideration has demonstrated successful results in multiple environments, including similar districts and communities.

Do Our District and Community Have the Capacity to Implement?

Only after this information is gathered can the local district and community compare what is required to what is available and whether all the components of the new program can be supported with fidelity.

Analyzing the data, resource mapping of current programming, identifying potential programs and evidence of effectiveness for the identified student population, comparing what it will take to implement a potential program to what additional resources may be available, and considering the program alignment to the social and cultural norms of the community can help a district make an informed program selection. In rural school districts with fewer resources and limited access to partner agencies, it is particularly important to begin by selecting programs with the best potential for success.

See Appendix 1, *The Hexagon Tool*, for a planning tool to guide the program selection process.

Usable Innovation Criteria

Selection of an evidence-based program that addresses the questions above is just the first step. It is critical to ensure that the selected program is also *usable*. To be usable, it is necessary to have sufficient detail about the key components of an innovation necessary to operationalize the process. The innovation needs to be teachable, learnable, doable, and readily assessable in practice. For example, consider the Positive Behavioral Interventions and Supports program (see www.pbis.org). This program requires, among other things, the creation of a school team to oversee the direct teaching of acceptable behaviors, the reinforcement of these behaviors when observed by staff, a data collection system and regular meetings for data analysis and intervention development for problem areas, fidelity tools used to examine whether the adults are doing what is required, and continuous orientation of new staff and new students to the program. If a district is not aware that all of these components are needed to be successful, how can it expect to replicate the program's success? How will they know whether it even has the capacity to support such a program or what to do when what they are doing is not working?

With an understanding of the key components, the district can train mental health professionals and educators to implement a program with fidelity, replicate it across multiple settings, and measure the use of the innovation. Necessary criteria for clearly defining an innovation so that it can be fully and effectively implemented include a clear description of the program, identification of essential program functions, operational definitions of program functions, and a practical performance assessment of those implementing the program (Fixsen, Blase, Metz, & Van Dyke, 2013).

A clear description of the program, including the underlying philosophy, values, and principles, provides the necessary foundation for the school district and community to inform program decisions that arise during the life of implementation. Specifying inclusion and exclusion criteria that define the appropriate program population helps to ensure that the core components are applied appropriately to support those students for whom the program is intended.

Essential functions refer to the core components that define a program. Without including these key components in the implementation process, the program cannot be implemented with fidelity, and so expected outcomes cannot be achieved. Once identified, these core components need *operational definitions* that provide clear, *behaviorally based descriptions* of each key component. These descriptions provide specific *observable indicators* that core components are in place, and promote consistency across classrooms, schools, and districts. This consistency allows for greater success in the replication of the program. One process for developing operational definitions of core components is through the use of a Practice Profile (see Appendix 2, *Practice Profile Planning Tool*). This tool provides an easily recognizable and accessible format for teams to develop behavioral descriptions of a program's core components that are both measurable and observable.

Once consensus is reached regarding core components and their operational definitions, the district is ready to create a *practical performance assessment*. The use of this assessment of the performance of teachers and mental health professionals who are delivering the school mental health program provides critical information about the degree to which staff are using the new skills with fidelity. The assessment should be grounded in the core components of the program and related to the behavioral descriptions defined in the Practice Profile. Performance assessments should be practical in that they can be conducted repeatedly at each level of the system (building, district, region, etc.) to inform decision-making about next steps in implementation of the program such as whether additional coaching is needed with current users, a need exists for changes in training before it is replicated with another group, or to identify roadblocks that may be getting in the way of using the new skills. Without performance assessments, there is no way to know to what extent the new skills are being used or whether, if they are being used, it is

with confidence and fluency. Rather than an evaluation of the educator or mental health provider, the *purpose of a performance assessment is to inform systems change* in order to create sufficient support for the use of the new practices. Performance assessments will provide evidence that the innovation is achieving expected outcomes when used as intended.

Districts should approach the selection of an evidence-based program with considerable forethought and investigation. This includes giving consideration to how well it will address an identified need, whether it is aligned with other activities already under way in the district, and how adequate resources can be provided to launch, implement, scale-up, and sustain the program. This begins with a clear description of the essential functions of a program, including operational definitions of its core components and a practical performance assessment to determine the extent to which staff members are acquiring the new skills.

Framework 2: Implementation Drivers

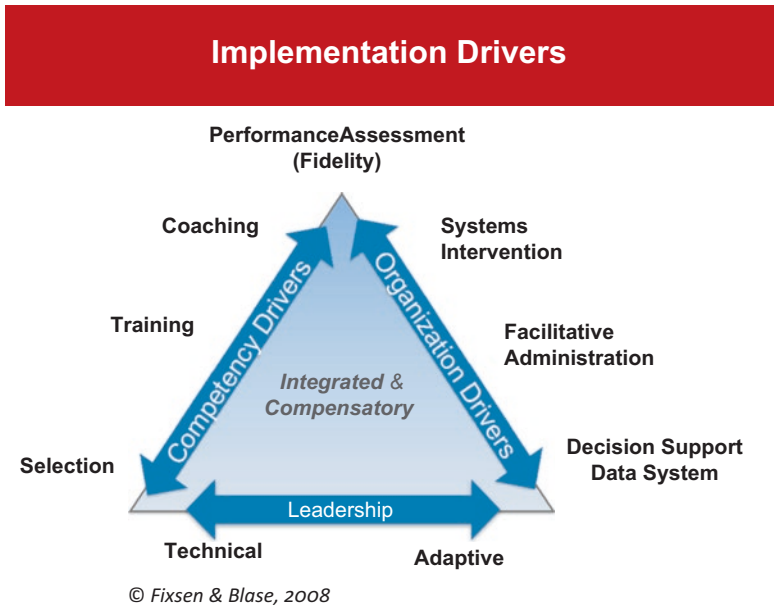
Once an innovation or program has been carefully selected, then operationally defined to ensure usability, the district knows *what* it will implement. Then it is necessary to consider *how* the innovation will be implemented to produce positive outcomes for students. The implementation planning process should include answering many questions before trying to actually launch a new program. What does the district need to have in place to support bringing this new program into the district? Whom should they select to do the work and how should they go about deciding? How can the first implementers be trained and coached to become fluent in the new skills? How will the district know when they have reached fluency in their skill building process and whether they are ready to coach others? What systems need to be established to support the data needs, meeting schedules and problem solving that usually accompany a new initiative? How will they be able to keep improving their implementation until they are ready to scale it to other schools in the district? What kind of leadership will this work require from administrators?

Developing answers to these questions will lead to an examination of what are known as *Implementation Drivers* that will "drive" the new program across the district by creating the necessary systems and processes for quality implementation and future sustainability. These Implementation Drivers are key elements of capacity and infrastructure that influence a program's success (Metz & Bartley, 2012). They are the core components needed to develop, improve, and sustain the ability of educators and mental health professionals to implement an innovation as intended and create an enabling context for the new ways of work. Implementation Drivers are based on common features that exist among many successfully implemented programs and practices. The structural components and strategies that comprise each Implementation Driver contribute to the effective and sustainable implementation of school mental health programs.

Some programs such as Positive Behavioral Interventions and Supports (PBIS) have been developed based on implementation science research and already provide guidance and tools for the district. The specific components of PBIS are clearly defined; recommendations exist for selection of team members for leading the work along with training and coaching ideas; performance assessments are readily available for use in districts to determine fidelity of implementation; collection, analysis and action planning around a variety of student outcome data is an inherent part of the program; and there is even a system already developed to support data needs if a district chooses to use it. In other words, the district can quickly see what readiness looks like, what work needs to still be accomplished and have access to tools to guide their work. However, when that is not the case, districts will need to do most of the work themselves to clearly define the program and then create and monitor a supportive environment.

There are three types of Implementation Drivers that, when used together, can help to ensure successful and sustainable program

implementation: Competency Drivers, Organizational Drivers, and Leadership Drivers. Competency Drivers are processes that lead to the skillful use by adults of any new practices; Organizational Drivers refer to the systems, resources, and administrative supports that must be available to allow these practices to occur; and Leadership Drivers address technical as well as emotional supports staff members may need from administrators as they move through the change process. The Drivers are *integrated* in that they are all part of a dynamic process, each Driver affecting the others; and *compensatory* in that where there are weaknesses in one Driver, there is some potential to make up for it in another.



Competency Drivers

Competency Drivers build staff competence and confidence to implement the school mental health program as intended by addressing the necessary selection practices, training and coaching supports, and ongoing performance assessment processes to ensure that staff are effectively supported throughout the implementation of the program.

Selection of staff to implement the program involves the identification of specific skills, experiences, and characteristics necessary for delivery of the program. Once identified, the school mental health program should define a process for recruiting, interviewing, and selecting individuals with these prerequisite qualifications. Development and use of protocols such as role-playing scenarios to highlight comfort using data and receptivity to coaching will help to yield a better match between staff skills and program requirements. In rural areas, with fewer human resources available, the district may have limited flexibility for selection and thus be unable to find a candidate to match all the criteria. They may need to rely more heavily on the training and coaching of these individuals to compensate for any initial gaps in their skills.

Training for staff implementing the school mental health program should be founded in evidence-based adult learning theory. Strategies such as pre-training readings and exercises, application and practice of new skills through role-playing and simulations, and opportunities

to receive feedback and participate in self-assessment in a safe environment can help staff more effectively apply new skills and practices (Dunst & Trivette, 2012).

While most skills for the school mental health program can be introduced through training, they will be practiced and mastered on the job. Joyce and Showers (2002) found that providing onsite *coaching* supports following training can increase staff application of new skills from 5% to as much as 95%. School mental health programs should develop coaching support structures that include direct observation to improve and maintain staff skills and program fidelity. It may be necessary to begin with external coaches; however, when it is possible to develop the expertise within existing staff, this support may later be more readily available and less costly as the program expands. Rural districts should keep this in mind as they develop the selection criteria for initial implementers.

The ongoing use of multiple sources of data is vital to achieving and maintaining fidelity of implementation of the school mental health program. The school district and community mental health systems should develop clear, transparent staff performance assessments to evaluate their selection, training, and coaching processes. Routine review of these performance assessments, combined with coaching data, practice profile reviews, and student outcome data, will ensure that any needed supports can be offered to staff as early as possible. School mental health programs can stay on track with early identification of strengths and needs in the implementation process. Frequent review of these data allows the district to quickly recognize and operationalize successes and to catch implementation errors before they are institutionalized.

Organizational Drivers

Well-trained staff cannot effectively implement a school mental health program without a systemically supportive environment. Remember, the purpose of performance feedback is for districts to address *system* revisions to better support staff members in their use of new practices. Organizational Drivers include Decision Support Data System, Facilitative Administration, and Systems Intervention. These are the supports and infrastructures needed to create hospitable organizational environments for the school mental health program.

Creating a culture that embraces the ongoing use of data to assess both adult implementation of the program and student outcomes is vital to becoming a learning environment that can improve and sustain implementation over time. *Decision support data systems* should include both *fidelity data* (as previously explained) and *outcome data* that are timely, actionable, and reliable. For a behavior program, for example, that might mean fidelity data showing the extent to which the adults are using the skills required such as direct teaching of desired behaviors, reinforcing positive behaviors and creating interventions based on office discipline referral data to address problem areas. Student outcome data might include data showing a reduced or increased number of discipline referrals, absences, or classroom tardiness. Teams may also look at changes in academic behavior such as homework completion and performance on quizzes and tests. Frequent collection and review of these data is key to preventing the institutionalization of implementation errors, and to operationalizing successes.

Facilitative administration involves those strategies that administrators can employ to provide a hospitable environment for the successful implementation of a school mental health program. These strategies encompass a wide range of activities to provide support to the overall program, including data collection, staff support and recognition, and administrative policy and procedure changes. Facilitative administration strategies may include providing access to necessary technology to support collection and aggregation of data in real time, and changing schedules to allow educators and/or mental health professionals to observe one another and meet with one another to discuss observations for shared learning and planning. Establishing clear communication protocols and feedback loops; realigning

responsibilities to allow participating staff sufficient time to learn and implement the school mental health program; and removing administrative barriers to learning, implementing, and assessing the program are other examples of facilitative administration. Spending the time to have as many of these supports in place up front will save time later by making the implementation process proceed more smoothly initially and providing continuing support as the program expands.

Systems intervention strategies involve those for interacting with external organizations, systems and funders to ensure the necessary fiscal and human resources and regulatory support for the school mental health program. In the case of a program involving the partnership of agencies, such as mental health and education a key systems intervention would be the establishment of a partnership agreement outlining communication, funding, and decision-making process in support of the program. Systems intervention strategies may include developing a frequent, transparent, shared communication process; establishing a parent-community network in support of the program; and maintaining agency and community support through frequent communication of rationales, progress data and outcomes data.

Leadership Drivers

Implementing a school mental health program and providing a supportive implementation environment requires that administrators attend to both technical and adaptive problems as they make decisions, provide guidance, and support organization functioning. Leadership drivers focus on matching leadership strategies, both technical and adaptive strategies, to challenges as they arise.

Heifetz, Grashow, and Linsky (2009) describe *technical challenges* as those that, though complex, have relatively clear definitions and solutions. Technical challenges can be addressed through traditional management strategies. These strategies may involve identifying a team, agreeing upon a solution, creating a plan, assigning tasks, and carrying out the plan. Heifetz and colleagues describe *adaptive challenges* as those characterized by different, often competing, views of what the problem is, and equally diverse opinions as to the solution. Strategies for addressing adaptive challenges include creating a safe environment for diverse opinions to be expressed and creating a culture that helps staff participate in and take on responsibility for making the necessary changes to move the work forward.

Implementation is a complex process. However, if a rural district takes care to install and maintain Implementation Drivers to navigate through that process, they will build a road for the mental health program to be delivered by competent staff members in an environment prepared to support the program with administrative leadership that uses both technical and adaptive practices to work through challenges.

Framework 3: Improvement Cycles

The implementation of a school mental health system will, as a matter of course, require changes to the status quo. Changes will need to be made both in the practices employed by educators and mental health professionals, and in the systems supporting those practices. How will implementers know which changes should be made, and if the right changes are being made? The frequent, intentional collection and review of data to guide decision-making can establish a "trial and learning" process of improvement. Improvement Cycles support the purposeful process of change. Improvement Cycles help to solve problems, improve practices, and create "hospitable" environments for new ways of work. The common structure for improvement cycles is the Plan, Do, Study, Act Cycle or PDSA (Deming, 1986; Shewhart, 1931).

- Plan: Detail the specific objectives and processes for the work
- Do: Implement the plan as defined
- Study: Review and analyze data about the process and outcomes achieved
- Act: Make changes to the next iteration to improve the process and/or outcomes

The cycle then begins again with a plan for next steps to continue to improve the process or to operationalize the success. Taylor et al. (2014) found that the PDSA cycle is often not followed fully. It is important for the implementation team to frequently review data, and use that data to inform the decisions of each revision of the plan. It is the repetition of this process that makes it such an effective continuous improvement strategy. Two specific types of PDSA Cycles addressed below are Usability Testing and the Practice-Policy Communication Cycle.

Usability Testing

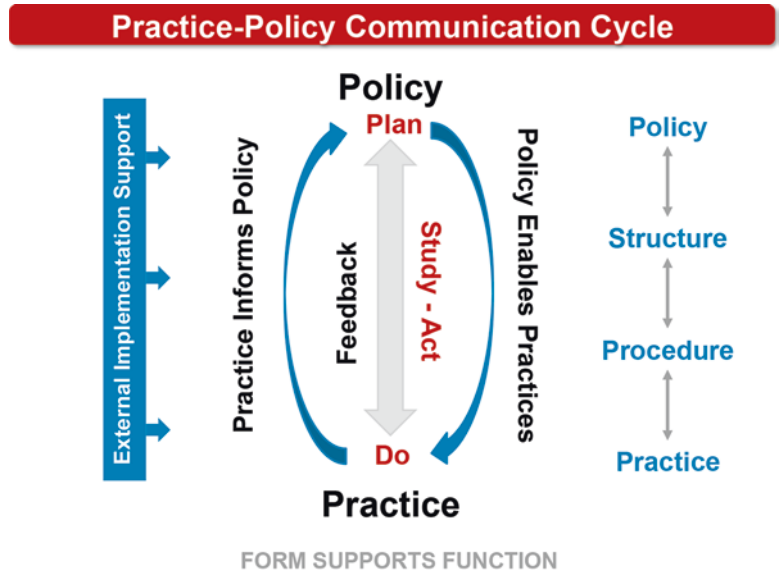
Usability testing allows for limited initial use of the innovation under "real-life" conditions, to quickly discover what works and what does not. While the more traditional piloting approach uses a broader sample of users for a longer period of testing time, usability testing involves multiple iterations of a program with a small number of users (4–5) in each cycle. Research has shown that a program's usability is improved more by four tests with five users each, than by a single test with 20 users (Nielsen, 2000). Nielson found that, while one user found about 30% of the problems, four or five users were able to identify 85%.

The program is first implemented with a few users or sites. A PDSA cycle is used to review data, make adjustments to the program, and begin the testing again with the revisions in place for a second iteration. The second usability determines if the revisions were effective, and uncovers additional surface problems with the program. The third test can probe more deeply into the fundamentals of the program and help to identify support structures that may be needed (Akin et al., 2013; NIRN, 2014). The process can be repeated several times until the program is ready for general use.

Practice-Policy Feedback Loops

New programs often do not fare well in existing organizational systems. Connecting policy to practice is a key aspect of reducing organizational barriers to high-fidelity implementation. Effective policy should be in place to enable good practice in the school mental health program. But those policies can only be effective if they are informed directly by educators and mental health professionals, and that communication needs to occur on a regular basis. Frequent, regularly scheduled communication between program implementers and school and mental health administrators is fundamental to this successful implementation. This ongoing communication is really the key to establishing that enabling context, or hospitable environment, in support of the work of the school mental health program.

As practice-policy feedback loops are developed, careful consideration should be given to frequency of these communication processes. If, for example, this communication occurs quarterly, then the system is only accorded three or four opportunities in a school year to make adaptations, or even a course change, in the implementation of the program. How quickly would you want to know if there is a barrier to implementation fidelity? How soon would you want to know about successful strategies that can be operationalized across the district? The frequency of these communication protocols determines how responsive the organization can be to program and student needs.



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Both the education and the mental health systems can be complex, fragmented systems, which can threaten the successful implementation of a school mental health program. Educators and mental health professionals may frequently experience barriers to service delivery that can only be solved at the policy level. The establishment of routine practice-policy feedback loops can create the supportive, adaptive systems that enable and sustain newly adopted evidence-based programs. The *Communication Protocol Worksheet* found in Appendix 3 can be used to document agreed upon practice-policy feedback loops.

Framework 4: Implementation Teams

Implementation Teams are responsible for ensuring that implementation frameworks are installed and maintained. Implementation teams are comprised of individuals (usually a minimum of 3–5) who are accountable for guiding the overall implementation of usable innovations through the stages of implementation (see Framework 5: Stages of Implementation), while attending to each of the implementation drivers and maintaining improvement cycles based on routine review of data.

Traditionally, service providers have been left on their own to implement the selected program or practice. Various authors (Fixsen et al., 2013; Greenhalgh, Robert, MacFarlane, Bate, & Kyriakidou, 2004; Hall & Hord, 1987) have categorized three approaches to supporting implementation. *Letting it happen* refers to the passive spread of knowledge that leaves administrators, educators, and mental health professionals to make use of research findings on their own. *Helping it happen* refers to the provision of supports such as manuals and web-based information to help implementation occur. *Making it happen* indicates that organized implementation teams take responsibility for actively supporting the implementation of a new program.

Fixsen et al. (2013) have described the *making it happen* strategy as a set of activities whereby active implementation teams take responsibility for supporting service providers and administrators as they guide the process of implementing

evidence-based programs in their organizations. Available evidence suggests that the use of implementation teams can improve rates for successful implementation and reduce the time it takes for a program to move to the full implementation stage (Balas & Boren, 2000; Fixsen, Blase, Timbers, & Wolf, 2001).

In multilevel systems, implementation teams should be established at each level of the system to guide the implementation process. The development of formalized, regularly scheduled, purposeful communication protocols between implementation teams at adjacent levels of the system helps to establish a cohesive system of implementation. While implementation teams may be established in both the education and mental health systems, it is recommended that a cross-agency implementation team be established to ensure that school mental health services are aligned and coordinated. In rural areas, implementation teams may include members from more than one community or district to maximize valuable resources.

Implementation teams focus on a number of key functions, including:

Creating and Assessing Readiness

Readiness is an important consideration in making effective use of a school mental health program. Implementation teams provide staff and community members with the rationales for change, research supporting the proposed program to be implemented, and the commitment of leadership to make the necessary changes in the existing system and development of supportive practices for the program.

Installing and Sustaining Implementation Drivers

Each implementation team is responsible for developing and maintaining the implementation drivers to support the use of school mental health programs with fidelity. Implementation drivers are the functional infrastructure supports that enable a program to be implemented as intended.

Monitoring Fidelity of Implementation

The intentional use of data in making decisions about next steps is vital to the sustained success of any program. Implementation teams routinely monitor data around whether the program is being implemented as defined (fidelity) to identify gaps in implementation and make changes (e.g., modifications to training, targeted coaching) to address those gaps.

Support Level and System Linkages Through Communication Protocols

Frequent, regularly scheduled communication between program implementers and school and mental health administrators is fundamental to the successful implementation of a school mental health program. This ongoing, intentional communication process is what allows successful strategies to be quickly operationalized, and prevents implementation errors from becoming institutionalized in the system. While ongoing communication is something on which all parties generally agree, maintaining that process is more difficult. It is the responsibility of implementation teams to model the use of agreed upon communication protocols at all levels, prompt responses from others, and provide recognition for the use of this important implementation practice.

Solving Problems and Building Sustainability

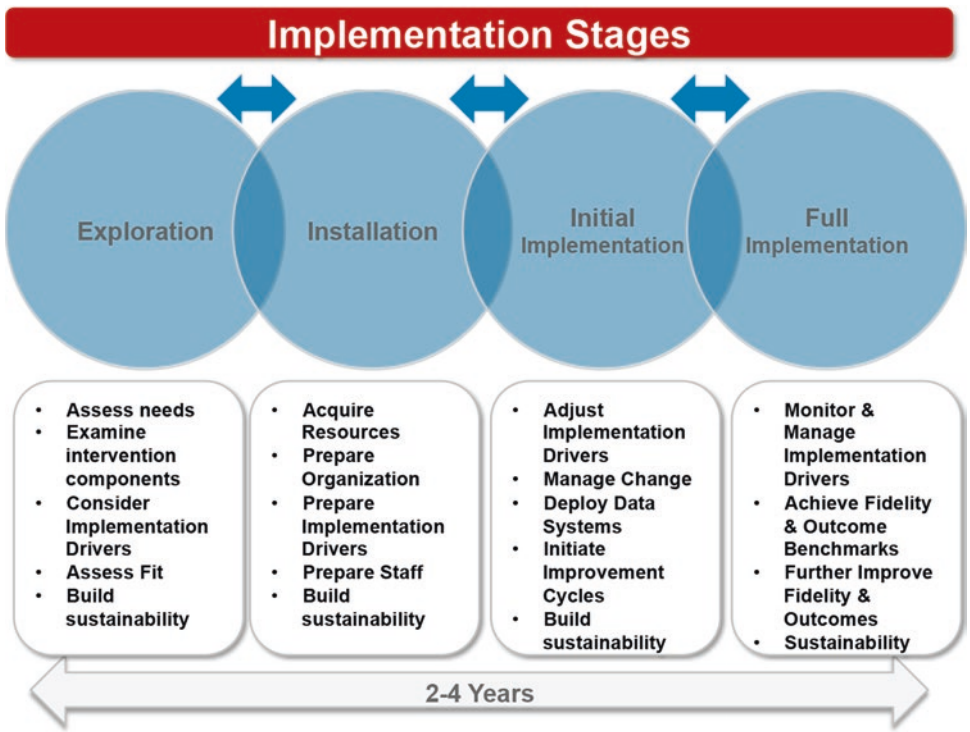
Implementation teams hold regular meetings to review both outcome and fidelity data, identify and address challenges to implementation through the use of implementation drivers, and communicate both successes and challenges to leadership and other teams across the system. This ongoing model helps to normalize the process of implementation and to build the necessary systemic supports to sustain an effective school mental health program.

Framework 5: Implementation Stages

Implementation teams are responsible for selecting and defining Usable Innovations, installing and maintaining Implementation Drivers and intentionally using data and making use of ongoing Improvement Cycles. These activities occur over time in stages that overlap and that are revisited as necessary.

Frequently, funders, policy-makers, and organizations demand that newly implemented programs produce improved student outcomes in unreasonably short periods of time. Despite these shared desires for rapid results, research has shown that it can be expected to take 2–4 years for a clearly defined, well researched and operationalized program to reach full implementation (Blase, Fixsen, & Phillips, 1984; Fixsen et al., 2001; Saldana, Chamberlain, Wang, & Brown, 2012).

Implementation is a process involving multiple decisions, actions, and corrections to change the structures and conditions necessary to successfully implement and sustain new programs and innovations (Metz et al., 2013). A review of the literature suggests that implementation occurs in four distinct stages: exploration, installation, initial implementation, and full implementation (Chamberlain, Brown, & Saldana, 2011; Fixsen et al., 2005; Romney, Israel, & Zlatevski, 2014). Conducting stage-appropriate implementation activities is necessary for successful new practices to be used and for organizations and systems to change in support of the new ways of work.



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Exploration Stage

The Exploration Stage is a critical starting place when considering change. Taking the time to explore what to do, how to do it, and who will do it saves time and money and improves the chances for success. This stage also is the time to assess potential barriers to implementation related to funding, staffing, referrals, and system changes. The result of the Exploration Stage is a clear implementation plan with tasks and time lines to facilitate the installation and initial implementation of the program.

During this stage, implementation teams are formed and begin the process of defining the work to be done. Data is collected and analyzed to determine the needs of the students and potential program models to meet those needs. Using that data and a careful review process to determine fit and feasibility, the appropriate school mental health program is selected for implementation. If critical components of the selected program are not clearly identified and defined, the implementation team leads that work to ensure the development of a Usable Innovation. Desired outcomes are determined and data needed to demonstrate those outcomes are identified for the development of fidelity assessment and the use of improvement cycles. Planning for the installation of competency drivers begins, to develop the training, coaching, and fidelity assessment systems. At the same time, planning begins around key organizational systems to ensure that data can be collected and analyzed, and the necessary policies and procedures are revised or developed.

Finally, it is in this stage that the implementation team develops communication protocols to link teams across the educational and mental health systems. That communication is supported by frequent meetings and sharing of information across teams at this early stage of implementation.

Installation Stage

After making a decision to begin implementing a new school mental health program, there are tasks that need to be accomplished before the program actually begins. This stage of implementation is often overlooked, but careful attention to the purposeful building of staff and organizational supports can help to ensure the successful implementation of the new program. The Installation Stage of implementation is characterized by activities that create the implementation infrastructure and make the necessary changes in practice.

Implementation team members develop a training plan to build staff competency and partner with program developers or external consultants or organizations to ensure effective training of the first cohort of staff in the new program. A coaching plan is developed and employed to ensure the ongoing support of staff competence and confidence in their use of new skills after training. Data from the initial training and coaching sessions is reviewed to determine if adjustments need to be made. The implementation team looks at organization drivers to ensure that the necessary financial and human resources are in place to support the new program. The implementation teams needs to continue to prompt the need for frequent meetings and intentional use of communication protocols to ensure that this practice policy feedback structure becomes an integral part of the school mental health program.

Initial Implementation Stage

The Initial Implementation Stage begins when the school mental health program is first being put to use. During this stage, educators and mental health professionals are attempting to use newly learned skills and practices in the context of a school, district or mental health system that is itself just learning how to change to accommodate and support the new ways of work. This is the most fragile stage where the awkwardness associated with trying new things and the difficulties associated with changing old ways of work are strong motivations for giving up and going back to comfortable routines. During this stage, usability testing is begun, and implementation teams need to focus on frequent use of data

to review initial implementation, identify successes and challenges or gaps in the process, and quickly make adjustments in response to that data analysis. Continued attendance to communication protocols helps to facilitate this.

Full Implementation Stage

Full Implementation is reached when 50% or more of the intended educators and mental health professionals are using the school mental health program with fidelity and good outcomes. Implementation teams review systemic supports such as data systems, funding, training and coaching practices, to inform decisions around scaling to additional buildings or grade levels and sustaining the school mental health program. In the Full Implementation Stage the new ways of providing services are now the standard ways of work where educators and mental health professionals routinely provide high quality services and the implementation supports are part of the way the systems carry out their work.

Summary

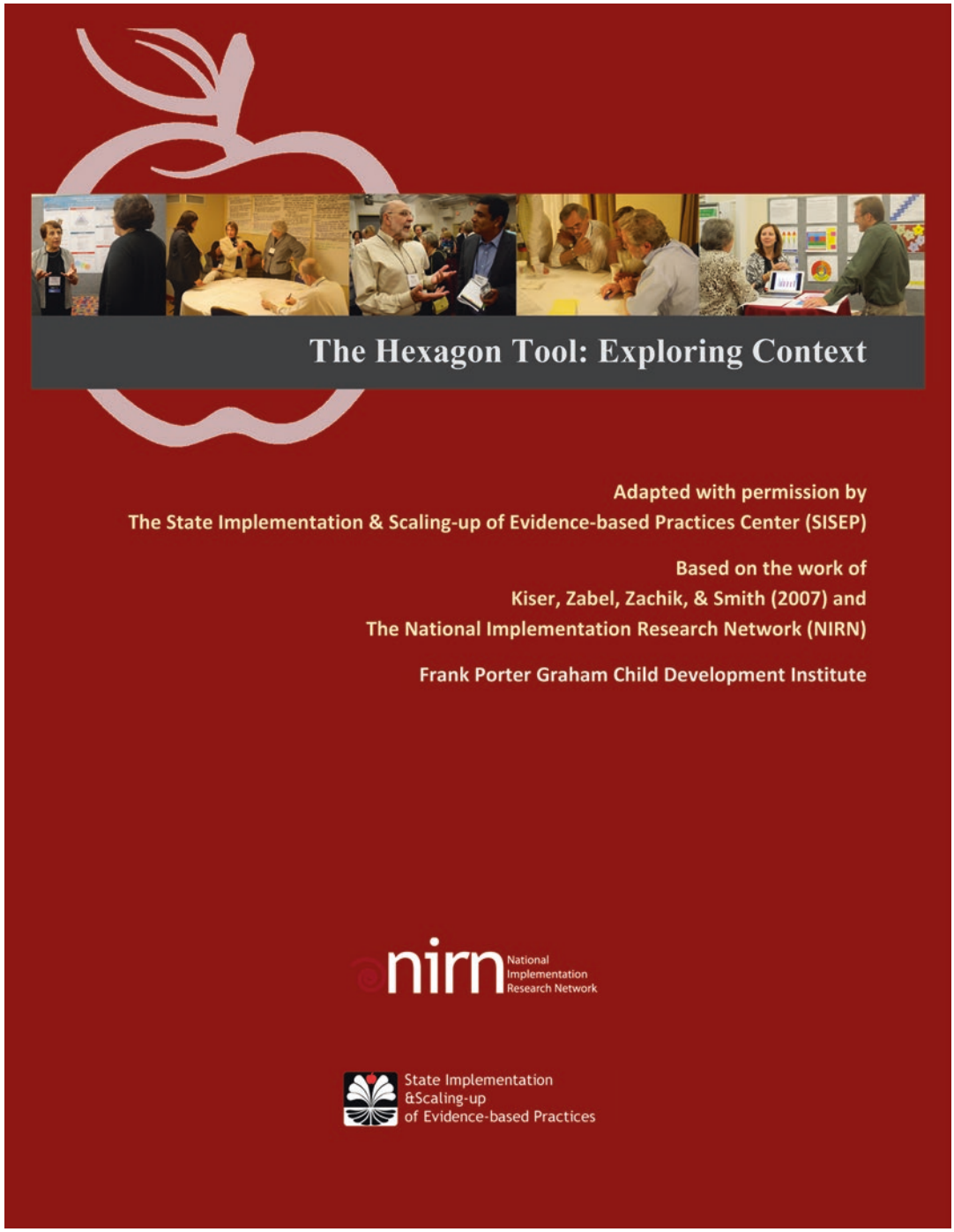
The success of a school mental health program depends not only on the selection of an evidence-based school mental health program, but also on the effective implementation of that program. A formula for the successful use of evidence-based programs may be characterized as:

$$\text{Effective innovation} \times \text{Effective implementation} \times \text{Enabling context} = \text{Educationally significant outcomes.}$$

Fixsen et al. (2013) note that this formula involves multiplication. If effective innovations are not selected, then improved outcomes will not be achieved. Similarly, if effective implementation supports or enabling contexts are not provided, then improved outcomes will not be achieved.

The National Implementation Research Network developed five overarching frameworks referred to as the Active Implementation Frameworks that can provide guidance in navigating the complex business of implementing a school mental health program. The five Active Implementation Frameworks are as follows: Usable Innovations, Implementation Drivers, Improvement Cycles, Implementation Teams and Implementation Stages. Establishing these implementation structures within the mental health and education systems can help to ensure successful and sustainable implementation of a school mental health program.

Appendix 1


The Hexagon Tool: Exploring Context
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About

The mission of the National Implementation Research Network (NIRN) is to contribute to the best practices and science of implementation, organization change, and system reinvention to improve outcomes across the spectrum of human services.

email: nirn@unc.edu
web: http://nirn.fpg.unc.edu

Effective implementation capacity is essential to improving education. The State Implementation & Scaling-up of Evidence-based Practices Center supports education systems in creating implementation capacity for evidence-based practices benefitting students, especially those with disabilities.

email: sisep@unc.edu
web: http://www.scalingup.org

The Hexagon Tool: Exploring Context

The Hexagon Tool helps states, districts, and schools systematically evaluate new and existing interventions via six broad factors: needs, fit, resource availability, evidence, readiness for replication and capacity to implement.

Broad factors to consider when doing early stage exploration of Evidence-Based Practices (EBP)/Evidence Informed Innovations (EII) include:

- **Needs** of students; how well the program or practice might meet identified needs.
- **Fit** with current initiatives, priorities, structures and supports, and parent/community values.
- **Resource Availability** for training, staffing, technology supports, curricula, data systems and administration.
- **Evidence** indicating the outcomes that might be expected if the program or practices are implemented well.
- **Readiness for Replication** of the program, including expert assistance available, number of replications accomplished, exemplars available for observation, and how well the program is operationalized
- **Capacity to Implement** as intended and to sustain and improve implementation over time.

A thorough exploration process focused on the proposed program or practice will help your Implementation Team(s) have a productive discussion related to the six areas listed above, and to arrive at a decision to move forward (or not) grounded in solid information from multiple sources. That information will assist you in communicating with stakeholders and in developing an Implementation Plan.

There are a number of discussion prompts listed under each area of the hexagon. These prompts are not exhaustive, and you may decide that additional prompts need to be added. The prompts direct you to relevant dimensions that your team may want to discuss before rating the factor.

For example, under the area labeled ***Fit,*** you are reminded to consider:

- How the proposed intervention or framework 'fits' with other existing initiatives and whether implementation and outcomes are likely to be enhanced or diminished as a result of interactions with other relevant interventions
- How does it fit with the priorities of your state, district, or school?
- How does it fit with current state, district, or regional organizational structures?

- How does it fit with community values, including the values of diverse cultural groups?

Recommendations for Using the Hexagon Tool

The following are SISEP recommendations for using the tool:

1. Assign team members to gather information related to the six factors and to present the information to the decision-making group or relevant Implementation Team. Following report-outs related to each area and/or review of written documents, team members can individually rate each area on a 1 to 5 scale, where 1 indicates a low level of acceptability or feasibility, 3 a moderate level and 5 indicates a high level for the factor. Midpoints can be used and scored as 2 or 4.
2. You can average scores for each area across individuals and arrive at an overall average score, with a higher score indicating more favorable conditions for implementation and impact. However, cut-off scores should not be used to make the decision.
3. The scoring process is primarily designed to generate discussion and to help arrive at consensus for each factor as well as overall consensus related to moving forward or not. The numbers do not make the decision, the team does. Team discussions and consensus decision-making are required because different factors may be more or less important for a given program or practice and the context in which it is to be implemented. There also will be trade-offs among the factors. For example, a program or practice may have a high level of evidence with rigorous research and strong effect size (Evidence), but may not yet have been implemented widely outside of the research trials[1]. This should lead to a team discussion of how ready you are to be the "first" to implement in typical educational settings in your area. Or the team may discover that excellent help is available from a developer, purveyor, or expert Training or Technical Assistance, but that ongoing costs (Resource Availability) may be a concern.
4. We recommend that after reviewing information related to each factor, individually scoring each factor, summarizing ratings, and discussing the strengths and challenges related to each factor of the proposed intervention, that the team members decide on a process for arriving at consensus (for instance, private voting or round-robin opinions followed by public voting

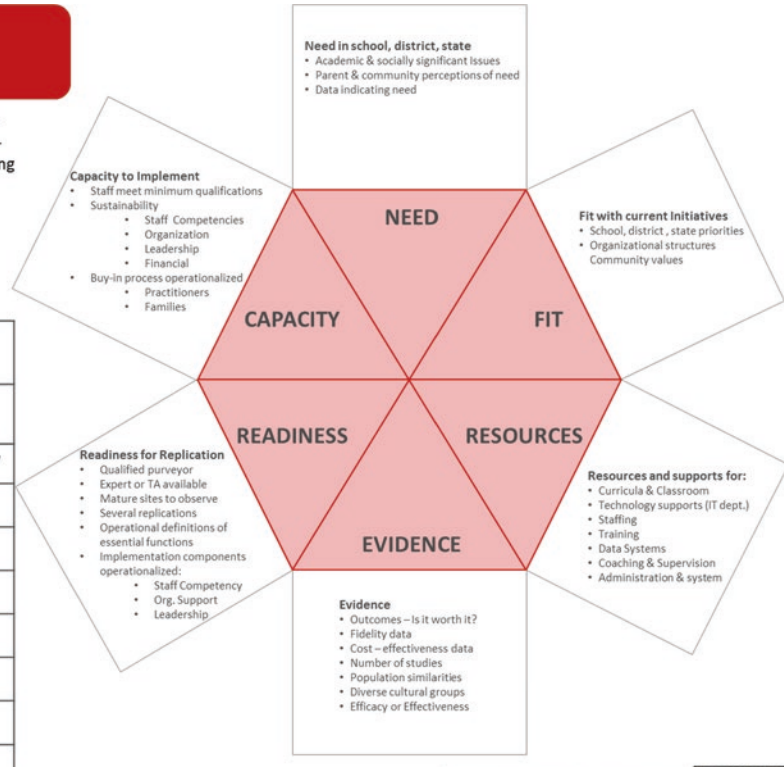
[1] Usable Interventions - To be usable, it's necessary to have sufficient detail about an intervention. With detail, you can train educators to implement it with fidelity, replicate it across multiple settings and measure the use of the intervention. So, an intervention needs to be teachable, learnable, doable, and be readily assessed in practice.

The Hexagon Tool
Exploring Context

The Hexagon Tool can be used as a planning tool to evaluate evidence-based programs and practices during the Exploration Stage of Implementation.

See the Active Implementation Hub Resource Library
http://implementation.fpg.unc.edu

EBP:			
5 Point Rating Scale: High = 5; Medium = 3; Low = 1. Midpoints can be used and scored as a 2 or 4.			
	High	**Med**	**Low**
Need			
Fit			
Resource Availability			
Evidence			
Readiness for Replication			
Capacity to Implement			
Total Score			



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Adapted from work by Laurel J. Kiser, Michelle Zabel, Albert A. Zachik, and Joan Smith (2007)

Appendix 2

Practice Profile Planning Tool

Clearly defined components and practices are a pre-requisite for sound implementation. This process will help you identify the core components or essential functions of your evidence based program.

Operationally define what the program would "look like" if you were to observe the instructional or behavioral practices being used as intended in the school or classroom. Identify each core component of the program, with some developmental variations of this core component, and finally identify any unacceptable variations of this component. Use a separate form for each core component.

Core Component	Contribution to the Outcome	Expected Use in Practice	Developmental Use in Practice	Unacceptable Use in Practice
Description of this component	Describe why this core component is important to achieving the outcome	Description of practitioner behavior	Description of practitioner behavior	Description of practitioner behavior

The AI Hub, AI modules and AI Lessons are an initiative of the State Implementation & Scaling-up of Evidence-based Practices Center and the National implementation Research Network Learn more at: http://implementation.fpg.unc.edu/

Appendix 3

Handout 8
Communication Protocol Worksheet

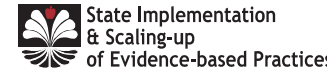
Communication is important for any program or innovation. Intentionally developing and using *linking* communication protocols for *new* or existing programs and innovations establishes a transparent feedback process and furthers the development of a hospitable policy, funding, and operational environment.

The specific purposes of linking communication protocols are to:

- Communicate progress and celebrate success throughout the system
- Report systemic barriers that are preventing or hindering implementation and
    - Should be resolved by one of the groups
    - Need to be moved 'up the line' to the group that can best address the barrier
- Report on actions taken related to resolve or address past issues
- Revisit past decisions and agreements periodically to ensure that solutions are still functional

In promoting system alignment, you may be developing a 'chain' of protocols from the practice level to the state level or you may be developing protocols between and among partners in a collaborative group. Depending on a number of factors (e.g. how new the relationships are, how cohesive the groups are, how much a common purpose is shared), it may take one or several meetings to work out the first draft of the protocols. After the protocols have been tried out a couple of times, the process should be evaluated for satisfaction and functionality and then adjusted.

Communication Protocol Worksheet



From: _____

To: _____

Rationale	
Issues to Communicate	
Responsible Individual(s)	
Schedule, Time Allotted	
Format	
Response Timeline	
Response Format	

References

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Planning, Implementing, and Improving Rural School Mental Health Programs

23

Melissa A. Maras, Paul D. Flaspohler, Marissa Smith-Millman, and Lindsay Oram

Systematic and dynamic continuous improvement processes are foundational to high-quality school mental health programs that maximize impacts for rural youth (Owens, Watabe, & Michael, 2013). The need for effective and efficient school mental health (SMH) programs has been well documented (Armbruster, Gerstein, & Fallon, 1997; Flaherty & Weist, 1999; Jennings, Pearson, & Harris, 2000; Nabors & Reynolds, 2000). This scholarship highlights persistent gaps in mental health services for children and adolescents, the negative impact of those gaps on short- and long-term outcomes among youth, and the promise of SMH programs in addressing gaps and improving outcomes for all young people (Armbruster et al., 1997; Diala et al., 2001; Nabors & Reynolds, 2000; Weist, Myers, Hastings, Ghuman, & Han, 1999). A growing body of evidence suggests the need for high-quality and effective SMH programs may be particularly acute in rural communities. Research points to higher prevalence rates for some mental health outcomes among rural youth (Eberhardt et al., 2001; Havens, Young, & Havens, 2011) along with barriers to accessing mental health services, including increased stigma, that reduce mental health service utilization in rural populations (Calloway, Fried, Johnsen, & Morrissey, 1999; Gamm, Stone, & Pittman, 2010; Holzer, Goldsmith, & Ciarlo, 1998; Owens et al., 2013). Responding to these needs, a limited but growing body of research supports the positive impacts of rural SMH programs (Evans, Radunovich, Cornette, Wiens, & Roy, 2008; Morsette et al., 2009).

While limited research may have slowed advances in rural SMH, a literature on best practices for rural SMH programs is emerging (Owens et al., 2013). Primary among these are best practice processes for planning, implementing, and improving rural SMH programs. Using data for quality assurance and improvement purposes is recognized as a critical feature of effective and efficient SMH programs (Barrett, Eber, & Weist, 2013; Wandersman, 2003; Wandersman et al., 2008; Weist et al., 2005). The rapid growth of processes, models, systems, tools, measures, and technology specifically intended to facilitate improvement in SMH programs illustrates the importance of effective data use to plan, implement, evaluate, and improve programs and

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services within the field (Barrett et al., 2013; Horner, Sugai, & Anderson, 2010; National Center on Response to Intervention, 2010; Wandersman, 2003; Wandersman et al., 2008). The knowledge and resources generated through this work can inform best practices for improvement in rural SMH programs. To maximize this potential, key stakeholders in rural SMH must be equipped to navigate the complexities of continuous improvement in school and school mental health.

Drawing upon the rich and evolving work on continuous improvement in SMH, we aim to provide the rural SMH workforce and other stakeholders with background, knowledge, and resources to plan, implement, and improve rural SMH programs. First, we briefly describe the current context of continuous improvement in SMH programs. We then highlight several "best practice" elements of an improvement system for SMH through a description of tiered systems of support widely implemented in schools. A case study illustrates how these best practices might be applied to a hypothetical rural school mental health program. Finally, we discuss key contextual factors of rural SMH programs that create barriers and opportunities for continuous improvement with a focus on local and broader implications for practice, policy, and research.

The Context of Continuous Improvement in SMH Programs

Over the last 15 years, federal policy and funding priorities reshaped the educational landscape by emphasizing the use of evidence to make educational decisions, a reliance on research-based educational practices, and accountability for schools based on student performance outcomes (Every Student Succeeds Act, 2015; Individuals with Disabilities Act, 2004; Mandinach, 2012; No Child Left Behind, 2002). The impacts of this cultural shift in data use are apparent in the daily practice of school personnel who participate in data teams, access student data via school-based databases, visualize those data using data walls or data dashboards, engage in data-based decision-making, and select best practices based on specific and measurable goals framed as student learning outcomes. Local SMH programs are inexorably linked to school culture, while broader erudition on "what works" in SMH evolved during this era of accountability in schools.

The importance of data use and evaluation is echoed across disciplines in SMH. This can be seen in the standards set forth by the fields of school social work, school psychology, and school counseling. The National Association of School Social Worker's Standards for School Social Work Practice (2012), the American School Counselor Association School Counselor Competencies (2012), and the National Association of School Psychologists' Model for Comprehensive School Psychological Services (2010) all identify data use as a key competency in SMH practice and require practitioners to be able to collect, understand, and use data in their work. While a comprehensive review of current trends in school improvement is beyond the scope of this chapter, facilitating continuous improvement in SMH programs is clearly embedded within the broader context of data use in schools.

In defining ten key principles for Best Practice in Expanded School Mental Health, Weist et al. (2005) highlighted the importance of using data to continuously evaluate and improve school mental health programs: "Quality assessment and improvement activities continually guide and provide feedback to the program" (Principle 5, p. 9). This principle reflects a shift within the broader school context and the field of education toward performance improvement processes more common in other industries such as healthcare and manufacturing (APQC, 2014; Park, Hironaka, Carver, & Nordstrum, 2013). These cross-industry influences are evident within the realm of school improvement and reform, including the philosophy, methodologies, and scholarship of Improvement Science (Bryk, Gomez, Grunow, & LeMahieu, 2015).

Planning or improvement cycles are essential parts of data-driven decision-making originally developed in the for-profit world and now

frequently used in education and social services (Lozeau, Langley, & Denis, 2002). In essence, planning or improvement cycles are change-management processes wherein groups of individuals or stakeholders work together to develop a defensible plan for addressing mutually agreed upon needs or demands within a community or organization. Planning and improvement cycles have some paradoxical characteristics; they are structured yet flexible, they are linear yet iterative, and they are simple yet complicated.

At first glance, the simple, structured, linear nature of all planning or improvement cycles is apparent. Each is expressed in terms of simple steps or stages from the most basic PIE (Plan, Implement, Evaluate; Flaspohler et al., 2003; Wandersman et al., 2003) and PDSA (Plan, Do, Study, Act; Deming, 1982) to the ten steps of GTO (Getting to Outcomes; Chinman, Imm, & Wandersman, 2004).

Embedded in each simple step lies the complex process of completing the step; as Wandersman has said, improvement cycles are common sense but not common practice (Fetterman & Wandersman, 2005). For example, planning necessarily entails identifying goals, objectives, processes, outcomes, impacts, and measurements. Each of these steps requires specific skills and abilities to complete. Like other organizations, schools often lack the readiness or capacity to use planning or improvement cycles as a part of the school mental health program (Flaspohler, Meehan, Maras, & Keller, 2012; Maras, Splett, Reinke, Stormont, & Herman, 2014). For example, insufficient training and support, limited resources, and competing priorities are all barriers to planning, implementing, and evaluating school mental health programs (Lendrum, Humphrey, & Wigelsworth, 2012). Most proponents of any particular planning or improvement cycle affirm that organizations should modify existing structures of the planning process to meet their own organizational needs and desires. The iterative or cyclical nature of these steps are often expressed through circular depictions emphasizing that the steps are intended to be repeated as part of an ongoing cycle of continuous improvement.

Given gaps in schools' capacity complex frameworks or models for data use in school mental health may overwhelm schools, particularly rural schools that struggle with fewer resources and different challenges in terms of staff capacity and turnover (Maiden & Stearns, 2007). Before reviewing common frameworks for data use current used in schools in more detail, we first describe how an improvement cycle is activated by an interdisciplinary team using diverse sources of data. Fundamentally, interdisciplinary teams use diverse sources of school data as part of ongoing improvement cycles to plan, implement, and evaluate effective school mental health programs.

Problem-Solving Teams

There is widespread agreement that interdisciplinary planning teams are an essential component of effective school mental health programs (Anderson-Butcher & Ashton, 2004; Markle, Splett, Maras, & Weston, 2014). The basic premise of such teams is that engaging diverse stakeholders in shared decision-making results in better programs and outcomes for students. Many schools have some kind of school mental health team that serves this function to some degree even as teams are multi-purposed, include diverse members, and have different titles (Nellis, 2012). While certainly not exhaustive, such a team may be called: Care Team, Student Intervention Team (SIT), Problem-solving Team (PST), Student Assistance Team (SAT), pre-referral intervention team (PIT), PBS team (referring to Positive Behavior Supports, discussed in more detail below), RtI team (referring to Response to Intervention, discussed in more detail below), interagency team, System of Care team (or SoC team), or wellness team (Burns, Peters, & Noell, 2008). While differences in terminology can be challenging for nonschool personnel, these teams share many common characteristics. We use the term problem-solving team (PST) throughout the rest of this chapter.

A best practice in the continuous improvement of school mental health programs is that

schools should have a PSTs (Markle et al., 2014), and many schools use these teams (Algozzine, Newton, Horner, Todd, & Algozzine, 2012; Nellis, 2012). PSTs are interdisciplinary and have a variety of functions ranging from student referral and evaluation to planning service delivery to implementing evidence-based practices to enacting systems change (Bahr & Kovaleski, 2006; Bahr, Whitten, & Dieker, 1999; Nellis, 2012).

Research suggests PSTs produce benefits at both the student and school levels. At the student level, PSTs are associated with increased student attendance and academic achievement (Oppenheim, 1999), less student misconduct (Smith, Armijo, & Stowitschek, 1997), and fewer referrals for special education evaluation and placement (Kovaleski & Glew, 2006). Further, in a review of nine studies examining the effectiveness of pre-referral intervention teams, Burns and Symington (2002) found an overall effect size of 1.15 for student outcomes like time on task, task completion, scores on behavior rating scales, and observations of target behaviors. At the school level, research findings suggest a 0.90 effect size for system outcomes including referrals to special education, new placements in special education, percentage of referral diagnosed with a disability, number of students retained in a grade, and increase in consultative activity by school psychologists (Burns & Symington, 2002). Overall, it appears PSTs are associated with positive outcomes for both students and schools.

Research suggests that in order to effectively improve student outcomes, PSTs must closely follow evidence-based problem-solving procedures (Kovaleski, Gickling, Morrow, & Swank, 1999). Given the importance of adhering to evidence-based practices, it is important to consider best practices for PSTs, with a specific focus on the ways in which teams engage in the problem-solving process. Based on an extensive review of the literature and years of field-based experience, Markle et al. (2014) suggest the following best practices for PSTs: secure teacher and administrator buy-in regarding the importance and benefits of PSTs; recruit an interdisciplinary team who have clearly defined roles; clearly and collaboratively decide upon the purpose of the PST and the procedures the team will follow (i.e., how often the team will meet, ground rules, agendas); use a systematic planning or improvement cycle, often referred to as a "problem-solving process"; and ongoing professional development with a specific focus in data-based decision-making, sharing practice, and evaluating team progress and effectiveness.

Although all of these best practices are important, one practice in particular is worthy of further consideration: use of a systematic problem-solving process. This process is critical to the effectiveness of a PST because it dictates how and when decisions are made; having a clear problem-solving process is associated with greater team satisfaction as well as success in generating useful, step-by-step intervention plans (Chalfant & Pysh, 1989; Safran & Safran, 1996). To be clear, these processes mimic the planning or improvement cycles described above, but a unique research base for PST processes exists. There are a number of best practices for the problem-solving process: emphasizing the use of data-based decision-making and evidence-based interventions (Doll et al., 2005), emphasizing problem-solving rather than problem identification (Burns et al., 2008), being efficient with time (Doll et al., 2005), defining problems in measurable terms (Safran & Safran, 1996), and exploring various options (Etscheidt & Knestling, 2007).

One model for the problem-solving process includes five steps: (1) identify and describe the problem, (2) analyze the problem, (3) develop a plan/possible solution, (4) implementation, and (5) evaluation (Flaspohler, Ledgerwood, & Andrews, 2007). In step one, it is suggested that PSTs being by developing a clear, objective, and measurable description of the problem. In step two, PSTs should analyze the problem using relevant data in order to determine the source of the problem. Further, if needed, they should gather more data. This step should end with the generation of a hypothesis statement about the problem. In step three, PSTs focus on developing a plan by selecting a measurable goal, determining specific and feasible strategies, interventions, and/or

supports, deciding on how progress will be monitored, and delegating responsibilities for implementation. In step four, PSTs move to implementing the plan they outlined, collect data on fidelity to strategies, interventions, and/or supports, and monitor progress. In the final step, PSTs evaluated the progress monitoring data and fidelity to the intervention plan and determine next steps based on these data. This problem-solving process can be used by any interdisciplinary team to strategically use data to plan, implement, and evaluate supports for students. Given the obvious importance of data within a data-based decision-making model, the following section reviews types of data commonly found in schools, as well as other data drivers in schools.

School Data

Schools use a variety of data sources to inform decisions about student's academic and behavioral health needs as well as school climate. In the following section, we will discuss these various sources of data and their specific uses in schools. Particular attention will be paid to how rural school collect and use these sources of data.

Academic Data Used in Schools

In terms of academic data, most data is connected to individual student performance and is used to improve students' academic program and performance. Academic data might include assessment results, grades, work samples, and teacher report. For instance, researchers sampled seven school districts and found that most teachers reported using assessments to both monitor student progress and as a way to improve student scores on state tests (Shepard, Davidson, & Bowman, 2011). Specifically, teachers in these school districts used assessment results to determine what material to re-teach their students certain material and as a way to data to guide classroom instruction (Means, Padilla, Debarger, & Bakia, 2009).

In general, research suggests that the effective use of data impacts student performance. For example, in a study that involved three rural schools, researchers found that data was used to help children with disabilities reach their highest potential (Kerr, Marsh, Ikemoto, Darilek, & Barney, 2006). In the study, the teachers made decisions about which topics to cover at parent teacher conferences and how students with disabilities should be taught. Another school in Milwaukee used reading scores to hire specialists and offer help to students who were struggling with reading (Mason, 2002). This particular school collected data to ensure they had the appropriate staff to tutor students who were struggling in reading. A literature review of rural schools' implementation of data-driven intervention framework showed that of the eleven studies examined, all studies demonstrated enhanced academic achievement for at-risk students (Dexter, Hughes, & Farmer, 2008). In general, there is evidence to suggest meaningful use of data may improve academic performance and student success.

Nonacademic Data

Data use in schools is not strictly relegated to academic data; schools also collect numerous other types of data. For example, attendance data is often collected in schools, even in schools without a strong culture of data use. This is not surprising considering that poor attendance has been linked to lower academic achievement (Balfanz & Byrnes, 2013) and increased risk of drop-out (Rumberger & Thomas, 2000). In addition, many states base a portion of school funding on student attendance (Epstein & Sheldon, 2002).

Office discipline referral (ODR) data is commonly used in schools to make decisions about behavioral interventions (Elliott, 2008; Fuchs & Fuchs, 2006; Sandomierski, Kincaid, & Algozzine, 2007). One of the most efficient ways to collect ODR data is via the School-Wide Information System (SWIS) program, an online database that school staff can easily access (Irvin et al., 2006). For each incident, school staff input

the name of the referring teacher, the name of the student, time of day the incident occurred, the nature of the incident, and the location of the incident. SWIS is capable of running different types of reports that range from exploring the rates of different types of problem behaviors that result in ODRs to examining schoolwide ODR patterns to looking at individual students' ODR rates (Irvin et al., 2006). In their study, Irvin et al. (2006) collected data from school personnel at 32 elementary and middle schools that use the SWIS program to log ODR data. They found that not only did the schools survey enter ODR data into SWIS regularly, but they also actively used this data to inform decision-making. Specifically, schools reported using ODR data/SWIS reports to help with early identification of student problem behavior, identification of specific problem behaviors schoolwide, and development and/or problem-solving of behavioral program interventions.

SWIS is just one type of database for ODR data. Other studies have asked schools to develop their own databases to house ODR data and have found that these also provide disaggregated data regarding the average number of ODRs per student, average number of ODRs per day, and the proportion of students with both one or more and ten or more ODRs (Sprague, Sugai, Horner, & Walker, 1999). It is important to note, however, that ODR data is not the only important type of behavioral data to collect from students. Studies have shown that ODR data consistently fail to capture students experiencing internalizing problems (McIntosh, Campbell, Carter, & Zumbo, 2009; Sandomierski et al., 2007). However, few screening or identification measures of internalizing symptoms have been investigated or explored (Sandomierski et al., 2007).

Many states have developed systems that help schools collect data. For instance, the state of Ohio provides another way to collect ODR data with their Education Management Information System (EMIS). All incidents that require disciplinary action are entered into EMIS. School districts can then use this data to identify which students are in need of further behavioral services. Ohio also requires all community mental health providers who deliver Medicaid-funded school-based mental healthcare to collect student data before and after the intervention using the Ohio Problem, Functioning, and Satisfaction Scales (Ohio Scales). These scales incorporate self-, parent-, and teacher-reports of student behavior, and when they are used as pre- and posttest measures, can provide useful information about the effectiveness of mental health interventions. Using EMIS and Ohio Scales data are good examples of how schools can use preexisting data to help students in need.

EMIS is only one example of how states help schools collect data. Researchers from the Mid-Atlantic Regional Education Laboratory investigated how Arkansas, Texas, Florida, and Virginia support local data use (Gottfried, Ikemoto, Orr, & Lemke, 2011). Overall, researchers found that all four states implemented three types of policies/practices to enhance local data use. First, they found that each of these states created an electronic data warehouse to house various kinds of data from schools statewide. These warehouses have the capacity to house both school-level and state-level data (i.e., attendance rates per school and performance on statewide tests). Second, researchers found that each state provides teachers, administrators, and principals with access to their individual schools' or districts' data. In Arkansas, a rural state, school staff have access to school-level data about demographics (e.g., language spoken at home, dropouts and withdrawals listed by race/ethnicity, enrollment by race/ethnicity, graduation rates by gender and race), school personnel (e.g., teacher experience, teacher certifications, district years of experience for staff), and school finances (e.g., building losses, poverty index, property values). Finally, all four states are also committed to building local capacity to analyze and understand data. States accomplish this goal through offering professional development trainings in how to understand and analyze data to teachers

and other school staff statewide. Both Arkansas and Virginia offer web-based professional development to increase accessibility to training statewide. Overall, this study exemplifies how states can play a critical role in helping individual schools use data.

Many high schools nationwide use the Youth Risk Behavior Surveillance System (YRBSS) to collect behavioral health data on their students. The YRBSS was developed by the Centers for Disease Control and Prevention (CDC) in order to assess the following six categories of health risk behavior in adolescents: behaviors that contribute to unintentional injuries and violence, risky sexual behaviors, alcohol and drug use, tobacco use, unhealthy dietary behaviors, and inadequate physical activity (CDC, 2015). The YRBSS is administered to high school students nationwide every 2 years. In addition to surveying students, the CDC also surveys school staff to better understand the types of school health policies in place at their schools. The CDC uses this data to create School Health Profiles (Foti, Balaji, & Shanklin, 2011). The data is not only used by the CDC, however. It is also used by state, territorial, and local agencies (like schools) to create change at the local level (CDC, 2015).

After conducting interviews with representatives from state and local agencies around the country, Foti et al. (2011) found that states disseminate YRBSS data to localities in a variety of ways ranging from posting data on their websites to delivering the data directly to principals and teachers statewide. At a more local level, states also use YRBSS to inform professional development programs for teachers. States not only used the YRBSS survey data to identify locations with high-risk populations for certain issues, but they also use the School Health Profiles data to determine which schools were in need of more policy and curriculum development. This enabled states to target the populations in greatest need of services. Researchers also found that this data was useful in seeking funding for different programs. Taken together, these results indicate that both academic and behavioral data are collected and used by schools to inform decisions about student care.

Other Data Drivers in Schools

While tiered frameworks drive data collection and use in many schools, there are also other data drivers in schools. For instance, the federal government requires data collection and use as part of the special education referral and evaluation process for all schools (IDEA, 2004). Schools that have student assistance programs likely collect data as part of the process. Additionally, school personnel may collect data related to their own programs. For example, school counselors may collect data about student response to a mental health intervention.

Special Education

The special education referral and evaluation process requires data collection and use in schools. Prior to special education referral, school staff members have likely collected data related to the students' academic performance which demonstrates educational difficulty (Center for Parent Information and Resources, 2016). This data may include but is not limited to grades, performance on standardized measures (e.g., CBM assessments, content specific developmental assessments, state assessments), and work samples. After referral, the student may be formally evaluated for special education services. Depending on the suspected disability, the following data collection procedures may be used: norm-references standardized assessments (e.g., intelligence assessments, academic achievement assessments, and behavior scales), parent, teacher, and child interviews, assessments of hearing, vision, fine, and gross motor skills, and observations.

Student Assistance Programs

Student Assistance Programs (SAP) are defined as school-based programs designed to address social, mental health, emotional, and academic needs of students (Torres-Rodriguez, Beyard, & Goldstein, 2010). Initially SAPs developed in

response to student substance use, but have expanded to address a broader scope of student concerns that impede academic performance. Although SAPs can vary greatly, most depend on student referral and analysis of student referral data. The data is then used to develop an action plan for the student. As with the tiered models, once the plan has been implemented additional data should be collected to determine plan effectiveness and student growth (Torres-Rodriguez et al., 2010).

School Personnel Specific Data

School personnel also sometimes collect discipline specific data. For instance, in the American School Counselor Association (ASCA) National Model (2012), data use is considered one of the eight core skills of a professional school counselor. Research shows that school counselors often document the number of guidance lessons taught, teacher and parent consultations, and student contacts (Studer, Oberman, & Womack, 2006). More recently school counselors have begun collecting program evaluation data in order to determine if their services were impacting student performance (Studer et al., 2006; Young & Kaffenberger, 2011). Additionally, school nurses also collect and use a host of data including health screening data, immunization records, and student visits reports (Bergren et al., 2016).

Tiered Response Models

A variety of systems have been developed to help school personnel work together to organize and provide a continuum of student supports within a planning and ongoing improvement cycle. These tiered response models share common characteristics including alignment with fundamental public health concepts (Vaughn, Wanzek, & Fletcher, 2007). As summarized by Miles and colleagues (2010) in their presentation of a public health approach to children's mental health, these concepts include: a population focus, an emphasis on promotion and prevention within a continuum of supports, addressing determinants of health, and engaging in a systematic implementation process (see Table 3.1, p. 40). These concepts emerge differently through unique tiered response models within schools, but the foundational link to public health is evident regardless of domain or context. These systems focus on all students (population focus); seek to optimize health, prevent problems from developing, and addressing problems that do develop (continuum of supports); attend to context and systems (determinants of health); and adhere to a systematic planning or improvement process (process). Regarding this last component, all tiered response models hinge on interdisciplinary teams using data within ongoing improvement cycles. Universal screening provides data that is used to identify individuals in need or services and additional data is collected to track the progress of those receiving targeted services (Vaughn et al., 2007).

Tiered response models are often visualized as the basic public health triangle (Vaughn et al., 2007) that includes three tiers of support: Tier I (primary prevention and promotion supports for all students), Tier II (secondary supports for students needing more help), and Tier III (tertiary or targeted supports for students needing the most support). These tiers encompass the continuum of supports provided by school mental health programs (Adelman & Taylor, 2010). While models are conceptually and functionally similar, these approaches have been criticized for being developed and delivered within silos resulting in fragmented supports for students across academic, behavioral, and mental health domains (Eagle, Dowd-Eagle, Snyder, & Holtzman, 2015; Maras et al., 2014). To address this problem, generic language like "tiered response models" or the more popular "Multi-tiered Systems of Support" or MTSS (Gamm et al., 2012) are often used in an attempt to be more inclusive. We use the term "Tiered Response Model" throughout this chapter unless referencing a particular approach. Below we describe three-tiered response models commonly used in schools: Response to Intervention

(RtI), Positive Behavior Interventions and Supports (PBIS), and Interconnected Systems Framework (ISF).

Response to Intervention

RtI is often associated with academic intervention, although recent literature shows that behavioral interventions can be integrated into the RtI framework (Bohanon, Goodman, McIntosh, & Talk, 2009). For the purposes of this chapter, only the academic applications of the RtI framework will be discussed. RtI was popularized by the 2004 Individuals with Disabilities Education Improvement Act as a method for both ensuring that schools are meeting students' needs and identifying students with special academic needs (Fuchs & Fuchs, 2006; Sandomierski et al., 2007). In RtI, Tier 1 is concerned with both providing evidence-based academic instruction to all students in the school and screening all students to assess their academic needs in hopes of preventing the development of academic problems and identifying students in need as soon as possible. The framework calls for students to be assessed at baseline and then have their progress monitored throughout the school year. Curriculum-based measurement (CBM), which is a brief (less than 5 min) assessment of a student's performance in either basic skills or content knowledge, is the most common academic universal screening and progress monitoring tool (Ball & Christ, 2012).

School staff members use the collected assessment data to identify students who are in need of further services. Students who are identified as in need of services move into Tier 2. In Tier 2, groups of struggling, at-risk students receive targeted evidence-based intervention. Students receiving Tier 2 supports are progress monitored to determine if they are benefiting from this intervention. If students are found not to benefit from Tier 2 intervention, they are moved into Tier 3, individualized intervention. Again, this intervention is evidence based, but rather than receive the intervention in a group setting, students are given a personalized treatment plan that is tailored for the student. At this point, students are often receiving services from special education staff (Elliott, 2008; Fuchs & Fuchs, 2006; Sandomierski et al., 2007). Overall, the RtI framework aims to use data-driven decision-making to better identify and treat students with special academic needs.

Positive Behavior Intervention and Supports

PBIS follows the same data-driven, three-tiered framework as RtI, but uses behaviorally focused data to provide behaviorally focused interventions (Sandomierski et al., 2007). Before implementing PBIS, schools must first identify three to five schoolwide behavioral expectations that all students will be taught and expected to comply with (OSEP Technical Assistance Center on Positive Behavioral Interventions and Support, 2016) . Typically, a team of approximately ten school staff members attend a 2–3 day training where they decide upon the school expectations. The team will then create a matrix that details how these expectations look in non-classroom areas like the bathroom, hallways, gym, and cafeteria. Once these expectations are in place, the school can begin implementing the universal Tier 1 strategies. In Tier 1, all students in the school are taught the behavioral expectations. Additionally, school staff implement universal screening and continuous monitoring of student behavior. Many schools choose to use office discipline referral (ODR) data, as it is easily accessible.

Another type of behavioral data that has been suggested in the literature as a universal screener and progress monitoring tool is Direct Behavior Ratings (DBR) (Chafouleas, Kilgus, & Hernandez, 2009). Direct behavior ratings involve observing specified target behaviors and then rating those behaviors following a specified observation period. Students identified as "at-risk" through data analysis move into Tier 2. In Tier 2, similar to RtI, students receive targeted, evidence-based interventions. Often these interventions take the form of group therapy, mentor-

ing, social skills groups, of check-in/check-out (CICO) interventions. Again, data is collected to monitor student progress, and students who do not respond to Tier 2 intervention are referred for more intense interventions at Tier 3. Students at Tier 3 often receive individualized treatment plans that are tailored to the specific students' behavioral needs (Muscott, Mann, & LeBrun, 2008; Sandomierski et al., 2007). Ultimately, PBIS utilizes continuous progress monitoring and data collection to better meet students' behavioral needs.

Interactive Systems Framework

Using the same three-tiered framework, the ISF integrates PBIS and School Mental Health (SMH) systems and, like three-tiered systems discussed previously, the ISF requires the systematic collection and use of data (Barrett et al., 2013). Since the model integrates PBIS, it is not surprising that universal screening and progress monitoring data is needed in the ISF. Additional data collection tools suggested in the ISF include rating scales, surveys, and/or interviews completed by students, caregivers, school staff and mental health providers. Additionally, direct observations of students' behavior are encouraged (Maggin & Mills, 2013). Many of the tools encouraged as part of the ISF are also found in other three-tiered approaches, such as PBIS. However, the data collected in the ISF has both a behavioral and mental health focus. Additionally, the ISF encourages collaboration and data collection with mental health providers outside of the schools, which is not typically part of other behaviorally oriented tiered models, such as PBIS.

Case Example

This case example was informed by the authors' collective experiences pertaining to working with, working in, working for, and attending rural schools. This example focuses on how a problem-solving team in a rural school can use data as part of an improvement cycle to plan, implement, and evaluate a school mental health program.

Ländlich Public Schools (LPS) is a K-12 school district serving about 175 students in a rural Midwest community. LPS' single facility is centrally located in the most populated town (Ländlich) within the large geographic region served by the district. The school is supported by 22 full-time teachers and staff, as well as one school administrator, one school nurse, and one school counselor. Any additional support services required from the school are contracted out. Health and social services are primarily accessed via satellite clinics located approximately 20 min from LPS. There is no public transportation in this area. The Ländlich Community Center was recently renovated to accommodate larger events held by community groups in the area.

Last school year a freshman student at a neighboring school district committed suicide, prompting the local community mental health agency to develop and deliver several free workshops on adolescent suicide prevention for community members. LPS' school counselor attended one of those workshops and then convened the school nurse, school administrator, and a high school teacher to discuss suicide prevention at LPS. Initial conversations identified a number of potential next steps, including additional professional development for teachers on warning signs of suicide or a schoolwide assembly with a guest speaker from the local community mental health agency. Members of this informal group quickly realized they did not fully understand the mental health needs of LPS students or current resources available to support students and their families. LPS' administrator contacted a colleague from a neighboring district to learn more about what she was doing to address students' mental health in her district. This colleague shared some information about their efforts to develop a student referral team and provide some training on mental health to teacher via free webinars.

At their next meeting, LPS' administrator presented what he had learned along with a brief summary of LPS' most recent state accreditation data on student achievement, attendance, graduate rates, and suspensions/expulsions. He also

provided weekly attendance data collected by the school. The school counselor described the mental health supports she provided as part of her comprehensive school counseling program, and the school nurse reviewed some basic health service data. The high school teacher, who also coaches the football team, talked about benefits he observed from partnering older students with younger students as informal peer mentors. He suggested teachers would be open to additional training on mental health as long as it did not require much additional time beyond scheduled PD. They all reviewed a report produced by the state department of health and senior services on youth mental health needs in their county. The administrator shared that one school board member had recently voiced concerns about the school offering any mental health supports. The school nurse reminded the group about the high parent turnout at the family fun night the school organized last year. She recalled how much teachers had enjoyed participating in the event with their own families.

Based on their discussion, the group prioritized three goals for the next school year. First, they decided to formalize a school wellness team that could also serve the advisory functions for the school nurse and school counselors' programs (e.g., wellness committee, school counseling advisory committee). They identified a parent who might be interested in joining their group and invited the third grade teacher to participate as well. The school administrator agreed to include small stipends for members of this team in his next budget request from the school board. Given the small size of their district, team meetings would be held before or after school outside of contract time.

They decided the group would meet monthly and that a smaller subgroup comprised of the school nurse, school counselor, and high school teacher would meet as needed to discuss individual student needs. This subgroup decided to adapt the forms the LPS administrator had received from his colleague with plans to evaluate the forms and their teams' success after about 3 months. The school counselor agreed to contact the youth counselor at the local community mental health agency to learn more about how students and families could access services. Noting that teacher professional development was already planned for the next school year, the team agreed to offer specific recommendations for the next year and will brainstorm alternatives throughout the year.

Second, noting a significant drop in student attendance between February and May during the last school year, the team determined they needed to gather additional information from students and parents to identify reasons for the increased absences. They received strong support from the LPS school board including permission to collect data via a survey distributed during a football game. They plan to share their findings and possible solutions with the board. Finally, the group decided LPS' next family fun night would have a mental health theme that focuses on strengthening families. The high school teacher agreed to learn more about free resources available online they might implement or share during the night. They identified three concrete goals for their family fun night and discussed ways to collect data to measure their success in reaching those goals.

Opportunities and Challenges for Rural School Mental Health Programs

With less funding and less experienced staff members, the systematic use of data within an improvement cycle is critical to the success of rural school mental health programs but perhaps even less likely to occur given the limited capacities often present in rural schools. Many rural schools experience below-average funding due to low income and low wealth of the school district residents (Maiden & Stearns, 2007). Low levels of funding contribute to rural districts' inability to attract and retain qualified and experienced personnel (Provasnik et al., 2007). Discussed in detail in this text, school mental health programs may be an ideal way to address barriers to accessing affordable, acceptable, and appropriate mental health services for children and adolescents in

rural communities (Owens et al., 2013); however, we believe the success of these programs hinges on their foundation in continuous improvement cycles.

Despite the availability of data, research shows that schools struggle with data use (Means et al., 2009; Means et al., 2010). Many school personnel are reluctant or unable to effectively use data due to lack of time and resources (Howley, Larson, Andrianaivo, Rhodes, & Howley, 2007; Kerr et al., 2006; Means et al., 2010). Teachers often have a great deal of work to do and the prospect of having to analyze and understand student data can feel overwhelming, especially when they have to do it on their own time outside of school hours. Due to smaller staff sizes, rural teachers may assume numerous roles with diverse job functions which further complicates the use of disparate data to improve performance. Time is clearly a significant barrier for all schools but perhaps even more so to rural schools.

Similarly, Owens et al. (2013) describe how school mental health professionals in rural communities are often required to be generalists in their practice out of necessity. The school counselor in the case example above must have broad expertise in providing a continuum of care for young people spanning an age range from 5 years old to adulthood. Further, a counselor working in a rural district may be the only mental health professional in a small community which may further stress her/his capacity. Employing an improvement cycle may streamline the development and delivery of mental health supports, but rural districts will have to make an extraordinary commitment to those processes to realize those benefits.

School personnel also often have limited capacity to interpret data. That is, teachers and other school personnel are not often trained in how to read reports or use data to make changes to their teaching practices (Kerr et al., 2006; Mason, 2002; Means et al., 2009). Research shows that professional development targeted at increasing both data use and capacity for data use has a positive impact (Means et al., 2010). For example, Robinson, Bursuck, and Sinclair (2013) collected and analyzed data related to two rural elementary schools' implementation of RtI. A theme that emerged in the study was that staff professional development was essential in order to support data-based decision-making. That said, rural schools often have high staff turnover and struggle to attract and retain qualified and experienced personnel (National Center for Education Statistics, 2007). Staff training may be needed on a consistent basis in order to ensure all staff members remain abreast of best practices in data-use. Unfortunately, rural schools may have difficulty gaining access to high-quality professional development trainings where they would learn these crucial skills (Harmon, Gordanier, Henry, & George, 2007) due to limited funds and geographic isolation.

Even when schools are classified as high-data users, school staff members rarely use data to alter schoolwide policies and practices, or individual teaching styles (Means et al., 2010; Shepard et al., 2011). Even though school staff members say they are willing to use data to identify and fix problems with student behavior and performance a salient problem exists: transforming knowledge into practice. In a study about how schools use data from interim and benchmark mathematics assessments, Shepard et al. (2011) found that when students performed poorly on the assessments, teachers did not often question why they performed poorly or how they could improve the way they delivered the material, but instead simply re-taught the material before moving on to the next topic. It may be important for schools to go beyond using data to inform practice to using data to *change* practice.

Developing and supporting a culture of data use among school staff has emerged as one of the best ways to change teacher behavior related to data use (Howley et al., 2007; Means et al., 2009; Means et al., 2010). To do this, school leadership must take the lead and make data-use a school priority. At a basic level, it is important for schools to use trustworthy data that is specifically pertinent to their current needs. Both teachers and principals have cited the data's believability as a barrier to data use. That is, they report not believing that the data is valid or accurate and that is does not appear to be useful (Kerr et al., 2006; Means et al., 2010). This is especially the case with data collected from statewide tests. In

their survey of teachers and principals from three urban school districts, Kerr et al. (2006) found that both teachers and principals voiced concerns about statewide test data. They reported feeling like statewide interim tests do not accurately assess student ability, students do not perform up to the potential on them because they are not motivated to do so, and they do not provide individual- or classroom-level item analysis. Teachers and principals reported preferring classroom assessments and reviews of student work because they are more meaningful to the school. If data is perceived to be irrelevant and/or invalid, school staff are less likely to use the data to effect change. In addition to inherent believability issues, state assessment data is also difficult for schools to use because it only indicates which areas students struggle in, but does not provide insight into why students struggle in these particular areas (Shepard et al., 2011). This makes it difficult to use the data to effect change. Using state test data may be particularly difficult for rural schools since they often have small student bodies and their overall scores are vulnerable to outliers (Reeves, 2003). That is, it only takes a couple of very low or very high scores to skew the whole school's data and paint an incorrect picture of the school's effectiveness. If teachers and principals perceive data to be irrelevant or invalid, they will be less likely to use it to create change (Howley et al., 2007; Mason, 2002; Parke, 2012). Once reliable and valid data is collected, leadership may have to purchase or create a data-system that is easily accessible by all school staff.

It important for schools to create organizational structures that increase data use (Howley et al., 2007; Means et al., 2010). Creating taskforces, sometimes referred to as data teams or problem-solving teams, with both teacher and leadership representation is core to this infrastructure. The team works to first determine which problems they want to target and then determine what kind of data they need to assess the problem and create solutions. For example, McIntosh et al. (2013) examined 217 schools across 14 states that had implemented PBIS in order to determine factors that predicted PBIS sustainability. They found that team use of data predicted increased sustainability. School leadership must set aside time for teachers to review and discuss data in structured small groups. Schools can also hire or assign data support staff to be used as a resource for teachers who are having trouble analyzing, understanding, or translating their data (Kerr et al., 2006; Means et al., 2010). However, this might be an admitted barrier for rural schools as they often have small staff sizes, which may or may not include support staff trained in data use and may not have the funds available to hire additional staff (Robinson et al., 2013). Promoting effective data use for improvement clearly seems to be a particular challenge for rural school.

Conclusion: The Promise of Networked Learning

Improvement science (Bryk et al., 2015) has heavily influenced recent scholarship that focuses on how schools can "get better at getting better." While not focused on school mental health per se, the foundational tenants of this work complement provisions of the Every Student Succeeds Act (ESSA) that allow states greater flexibility to reimagine assessment and accountability frameworks that move away from compliance regulation toward local ownership of performance results and professional responsibility for continuous school improvement (Darling-Hammond et al., 2016). Importantly, ESSA further requires states to include a nonacademic indicator of school quality of student success; school mental health experts are encouraging states and school districts to capitalize on these policy changes to integrate mental health as a key component of broader school improvement efforts (e.g., Adelman & Taylor, 2016). While promising, it is not yet clear how states will translate ESSA and if/how states will strengthen their existing infrastructure to help rural schools to enact any changes nevertheless those that might directly or tangentially affect rural school mental health programs. Regardless, there is a need for innovative methods to build capacity for improvement among rural schools to support effective school mental health programs.

Networked learning, achieved via networked improvement communities (NICs) focused on problems of practice specific to rural schools, may optimize districts' response to shifting state and federal education policies. A NIC is a scientific learning community comprised of committed stakeholders with diverse and valued expertise organized to enact, sustain, and scale a collective impact approach to solving a specific problem of practice (Bryk, Gomez, & Grunow, 2011). Not dissimilar to the PSTs described above, these networks are distinguished by four essential characteristics: (1) shared focus on a specific aim (i.e., problem of practice); (2) guided by a thorough understanding of the problem, the system that produces it, and a theory of improvement relevant to it; (3) disciplined by a cyclical improvement research method used to develop, test, and refine interventions; and (4) organized to accelerate the use of this cyclical research method to produce and effectively integrate interventions into practice across distinct educational contexts.

Revisiting LPS, the hypothetical school district used in the earlier case example, may help illustrate the potential benefits of NIC membership for rural school districts. In that case, a community mental health agency offered workshops on adolescent suicide prevention. The school counselor attended one of these workshops which prompted local action by the LPS administrator and staff. School mental health professionals or administrators from other local districts could have also participated in one of the workshops, and these districts could have formed a NIC focused on suicide prevention. Each district could have pursued local actions with the support of other districts focusing on the same problem of practice, creating opportunities to leverage current knowledge across districts and perhaps pool resources to access additional mental health resources. Alternately, the community mental health agency could have facilitated connections at a regional level to increase the pool of shared knowledge from which each participating district could benefit. The NIC could create and support relationships among school mental health professionals who, as was the case for the counselor at LPS, are often isolated in rural schools. Similarly, district administrators could collaborate on a variety of broader systems issues such as funding, engaging parents and other caretakers in the work, accessing public mental health services, and/or addressing stigma in their communities.

The organization of multiple entities into a NIC creates different kinds of affordances for disseminating best practices and support their use, both in terms of creating a single point of access to and for practitioners, as well as establishing a system of support comprised of local experts working in similar contexts. This type of arrangement also facilitates inquiry at a broader level that could advance systems-levels innovation in education (Peurach, 2016). With regard to the hypothetical NIC described above, potential investigations might focus on the relative utility of different kinds of school data when planning universal mental health supports; child-level outcomes of school-based v. community-based mental health services; or the ideal balance between in-person, on-site, and web-based PD on mental health for teachers. Such scholarship could distinguish between rural, suburban, and urban settings to inform policy and funding decisions, thus strengthening the system necessary to facilitate effective rural school mental health programs.

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