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Editors

Practitioner's Guide to Empirically Based Measures of Social Skills

Springer

PRACTITIONER'S GUIDE TO EMPIRICALLY BASED MEASURES OF SOCIAL SKILLS

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Preface

Over the past five decades, research has begun to catch up with intuition in confirming the inextricable links between social and psychological functioning. At each and every developmental level, social skills deficits and problematic social relationships contribute to a wide range of more normative adjustment difficulties and clinical disorders. In fact, almost half of the Axis I clinical disorders and almost all of the Axis II personality disorders listed in the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV-TR; APA, 2000) have problematic social functioning as a criterion and the majority of the remaining disorders have important social implications. Indeed, the diverse range of associated presenting problems just about guarantees that practitioners will conduct some form of social skills assessment and training either as a primary intervention or as part of a treatment package. In this volume, we provide a single, comprehensive, "go to" resource to help guide such efforts.

This book delivers even more than what is suggested in its title. To be sure, like its predecessors in the ABCT Clinical Assessment Series, this volume includes reviews of empirically based measures. Descriptions and psychometric reviews for nearly 100 measures of social skills separated by developmental level are included. In addition, quick-view guides facilitating measure identification and comparison by developmental level are also included. Another useful feature is that reprinted measures are also made available in cases where copyright permission could be obtained. Beyond the measure review sections, this book also includes chapters addressing the conceptual foundations of social skills assessment, applied issues and considerations, and a variety of special topics, such as developmental and diversity considerations, and populations, such as individuals with anger and aggression, social anxiety and withdrawal, intellectual disabilities, autism and related developmental disabilities, schizophrenia, and substance abuse. Each of these special population chapters is written by noted experts in the particular area. As described above, we did our very best to make this a comprehensive resource for practitioners and researchers alike.

A project of this scale requires a team effort and a great deal of persistence and patience. We were fortunate to have ample resources to rely upon. Each coeditor brought teams of highly capable graduate students and university resources to bear, and we would like to first thank all of those participants, both those recognized with authorship and those not, for their efforts. Through the difficult and seemingly never-ending process of compiling the measure reviews, etc., a number of these students moved on to internship, graduation, and beyond. We would also like to thank Sharon Foster and Art Nezu for their initial support of the proposal to have this volume included in the Clinical Assessment Series and ABCT and Springer for eventually approving it. Special thanks go to David Teisler for his continued support and

guidance and Marty Antony for his words of wisdom based on his past experiences heading up such a project. Thanks also to the staff at Springer, especially Sharon Panulla, for actually bringing the volume to publication. Finally, like the authors of previous volumes in this series, we would like to offer heartfelt thanks to our families, friends, colleagues, and students for their understanding and sacrifices as we toiled away on this project.

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Introduction

Douglas W. Nangle

BACKGROUND

Few, if any, constructs can match social competence in terms of its widespread implications for psychological adjustment and well-being. Heightened interest in the construct and the skills presumed to underlie it can be traced back to two major developments occurring in the 1960 s and early 1970 s. First, early overarching definitions positioned social competence as essentially synonymous with more general competence (e.g., Goldfried & D'Zurilla, 1969; Trower, 1982). Along with the rise of the social learning perspectives (e.g., Bandura, 1969; Bandura & Walters, 1963), such encompassing views of social competence helped to challenge the prevailing disease models of psychopathology and set the foundation for the modern skills-training approaches (Ford & Urban, 1998). In the competence-based models, problematic social behavior was defined by its links to dysfunction and not some presumed pathology. Moreover, such dysfunction could be reversed through a learning process (i.e., skills training) that was much the same as the one in which it was assumed to be initially acquired. Second, empirical research began to point to the centrality of the social competence construct. Early and often-cited examples included demonstrations that childhood peer ratings of sociability were predictive of adult outcomes (Cowen, Pederson, Babigian, & Trost, 1973; Roff, Sells, & Golden, 1972) and that social competence measures were predictive of adjustment following psychiatric hospitalization (Zigler & Phillips, 1961).

Since that time, interest in the social competence construct has soared, and an enormous body of related research now exists. Across the life span, problems in social relationships contribute to many normative adjustment difficulties and clinical disorders. Children rejected by their peers can be expected to experience continued social problems, loneliness, poor school adjustment, greater academic difficulties, and later adult mental health problems (e.g., Cowen et al., 1973; Ladd & Asher, 1985; Parker & Asher, 1987). Adults with poor social skills experience less satisfaction and success in romantic relationships and marriages (Burleson, 1995; Kelly, Fincham, & Beach, 2003). Among the elderly, poor social interactions, infrequent participation in social activities, and social disengagement predict cognitive decline (Zunzunegui, Alvarado, Del Ser, & Otero, 2003). These are but a few examples of the many demonstrated links between social functioning and psychological adjustment.

Intervention research and clinical applications have also flourished. Social skills training interventions have been used to address many problem constellations and clinical populations. Indeed, considering the broad scope of behaviors falling under the heading "social skills" and the equally diverse range of populations and presenting problems associated with deficits, social skills training is applicable in virtually every clinical setting, either as a primary intervention or as part of a treatment package. Example applications include successful interventions for individuals with autism (e.g., Plienis et al., 1987), social anxiety (e.g., Spence, Donovan, & Brechman-Toussaint, 2000), communication difficulties or language impairments (e.g., Godfrey, Pring, & Gasciogne, 2005), visual impairments (e.g., Kim, 2003), schizophrenia (e.g., Dilk & Bond, 1996), anger (e.g., Deffenbacher, Story, Stark, Hogg, & Brandon, 1987), and substance abuse (e.g., Pfost, Stevens, Parker, & McGowan, 1992).

Like the other volumes in this series, the purpose of this book is to provide practitioners and researchers with a single comprehensive resource for empirically based assessment information. Given the overarching nature of social competence, developing such a "go to" resource for social skills assessment was a daunting, and at times seemingly impossible, task. Indeed, the many clinical problems to which the social skills concept has been applied led McFall (1982) to question: "How is it possible for any psychological concept to be invoked so widely and still retain any specificity or meaning or utility?" (p. 2). Like McFall, we clearly believed that the concept was a useful one and wanted to help practitioners and researchers interested in its many applications better navigate the often unwieldy literature and sift through the many available measures. As the title suggests, this book contains a compendium of empirically based measures of social skills with compact, yet detailed descriptions and psychometric reviews. But, as a complete resource, we have included much more. Preceding the measures coverage are three major sections with chapters addressing conceptual issues, general assessment and intervention considerations, and special topics and populations.

To our knowledge, this book stands alone in the literature and differs from other available sources in several important ways. One, it combines thorough coverage of both conceptual and applied material in one volume. Two, it addresses social skills throughout the life span, with particular sections on children, adolescents, and adults, as well as chapters on developmental and diversity issues. Three, unlike many resources that include a chapter as part of their broader coverage of types of intervention or particular problem constellations or disorders, this book is exclusively devoted to social skills issues and contains chapters targeting clinical populations of special interest. Four, as part of the ABCT Clinical Assessment Series and in line with the growing interest in evidence-based assessment practices (e.g., Hunsley & Mash, 2005; Mash & Hunsley, 2005), choices on what to include in this volume were founded in established empirical support.

STRUCTURE OF THE BOOK

This book has four major sections. The first section is comprised of three chapters addressing the conceptual foundations of social skills assessment, including the definition and identification of target skills, social cognitive models and skills, and a primer on the social learning perspectives that serve as the basis for the entire volume. The second section has four chapters addressing more applied issues and considerations, including social skills and psychological adjustment, assessing children and adolescents, assessing adults, and social skills interventions. Section three is devoted to special topics, including chapters on developmental and diversity considerations, and populations, including anger and aggression, social anxiety and withdrawal, intellectual disabilities, autism and related

developmental disabilities, schizophrenia, and substance abuse. Written by noted experts in the area, each of special population chapters includes coverage of unique assessment considerations and selective reviews of tailored measures of social behavior and closely related constructs (e.g., aggressive behavior, social anxiety). The fourth section contains the measure reviews and is divided into separate chapters covering measures developed for children, adolescents, and adults.

Following the fourth section are a series of appendices. Appendix A includes three quick-view guides providing brief summaries of all reviewed measures in an easy-to-use tabular format. Consistent with the measure reviews in the preceding section, there are separate quick-view guides for children, adolescents, and adults. Summarized in the guides are the name of the instrument, target population, instrument type, instrument focus, time to complete, whether norms are available, costs, and whether any alternate forms are available (e.g., brief versions, non-English versions). Appendix B includes reprinted copies of any measures for which such permission could be obtained. Increasingly, measures are copyright protected and many are controlled by companies that market them to professionals. As such, we were only able to obtain permission to reprint a portion of the reviewed measures (relatively, a much smaller number of child and adolescent measures). Finally, Appendix C is a glossary defining many of the technical terms used throughout this book.

SELECTION OF MEASURES FOR INCLUSION

As summarized above, social competence is a sort of an umbrella construct that has been likened to competence in general. In developing selection criteria, we encountered concerns similar to those voiced by McFall (1982) and faced the question of what would *NOT* be considered measures of social skills. We decided not to include measures of closely related constructs, such as aggression and social anxiety and instead have these reviewed in separate "special populations" chapters in recognition of their importance in social skills assessment. Another decision was that at the very least the measure had to have specific scales (or scores) devoted to social behavior. For example, though a comprehensive measure of competencies, adaptive functioning, and emotional/behavioral problems, we included the Child Behavior Checklist (Achenbach & Rescorla, 2001) because it has particular scales devoted to social competence and problems. In such cases, the measure reviews focus on the social behavior scales. Additional criteria included those used in the previous volumes in this series (see Nezu, Ronan, Meadows, & McClure, 2000). That is, the measure had to be available in English; assess some aspect of [social competence or skills; see above]; be of relevance for the field of cognitive-behavior therapy broadly defined; and have some established psychometric properties (preferably published in a peer-reviewed journal and still in use).

Over the course of two years, we engaged in a comprehensive measure identification process that entailed repeated "calls for instruments" published in several professional journals, multiple literature reviews and computer searches (e.g., PsychInfo), and letters to numerous social skills experts asking for suggestions of measures to include in the volume. Like the authors of previous volumes, we acknowledge the fact that some measures may have been overlooked in this process and apologize up front for any significant omissions.

FORMAT OF INSTRUMENT DESCRIPTIONS

The fourth section of the book is devoted to the measure reviews and is divided into separate chapters covering measures developed for children, adolescents, and adults (i.e.,

Chapters 15, 16, and 17). Each of these chapters begins with a preface that serves not only as an introduction but as a forum to review other important assessment methods or procedures that did not fit the inclusion criteria because they were not measures per se. For example, direct observation is often used in social skills assessment, yet it is more of a collection of procedures adapted to the particular demands of the clinician or researcher than a standardized measure with an identifiable title and author. Likewise, sociometric assessment is frequently used with children but is considered more of a "procedure" with differences in scoring and administration across applications. Following the preface are the actual measure reviews, and these are categorized by method. For example, the child measures (Chapter 15) is divided into ratings-by-others, peer report, interview, self-report, and analog sections.

Each measure review is presented in a standard format:

Title

Provides the title of the instrument is provided, as well as the most commonly used acronym.

Original citation

This section provides the original reference for the instrument, which is typically either a journal article or a manual. Given the space limitations and large number of measures, the psychometric reviews are necessarily limited and usually rely most heavily on the original citation. That said, additional references are cited throughout and listed in a compiled list of references at the end of each section. Note that to save space the original citations are not included in that list.

Purpose

This section describes the purpose of the instrument.

Population

This section briefly describes the intended populations for use.

Description

An overview of the instrument's structure, scales, items, and response format (e.g., 3-point Likert-type scale) is provided in this section.

Administration and scoring

This section provides information on administration (e.g., time to complete) and scoring. When available, computer-scoring applications are also described. Scoring information is necessarily limited, and users would need to consult the relevant manual for actual scoring purposes.

Psychometric properties

This section provides relevant psychometric information that is based primarily on the original citation, though additional references are also included throughout. The section is divided into subsections describing *norms* (available norms), *reliability* (typically internal consistency and test-retest reliability), and *validity* (brief summary of available validity estimates, such as content, concurrent, predictive, discriminant, construct, factorial, and convergent).

Source

Information needed to obtain the measure and/or contact the author is provided in this section. Though we made considerable efforts to test all contact information, we cannot guarantee that such information will remain accurate after this book is published.

Cost

This section describes available products (e.g., manual, forms, and scoring packages) and current costs as of the publication of this book.

Alternative forms

Whether any alternative forms (e.g., brief versions, other than English versions) are available is noted in this section.

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Part I
Conceptual Foundations

Chapter 1
Defining Competence and Identifying Target Skills

Douglas W. Nangle, Rachel L. Grover, Lauren J. Holleb, Michael Cassano, and Jessica Fales

DEFINING COMPETENCE AND IDENTIFYING TARGET SKILLS

It is fitting that we begin this volume with an attempt to define social competence. A definition should bring us further toward operationalization and the identification of critical skills to be targeted in assessment and intervention. As it stands, however, there is no agreed upon definition of social competence. Though understandable given the overarching and complex nature of such competence, this lack of agreement has caused problems for both assessment and intervention and has limited the overall utility of the construct. Proposed requisite skills for socially competent responding range from cognitive (e.g., fund of information, skills for processing/acquisition, perspective taking), emotional (e.g., affect regulation), and behavioral (e.g., conversation skills, prosocial behavior) skills and abilities, as well as motivational and expectancy sets (e.g., moral development, self-efficacy; Dubois & Felner, 1996). Indices of social functioning are similarly wide ranging and have included everything from various adjustment "statuses" (e.g., health, legal, academic, occupational, psychiatric, emotional, relationships) to global judgments of competence in specific tasks to acceptance by peers

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(Cavell, 1990). As such, according to Cavell (1990), the often found lack of correspondence between requisite skills and social functioning measures is to be expected and stems more from definitional ambiguity than purported measurement issues. He raises a question as to whether the various social functioning measures are different ways of assessing the social competence construct or different ways of assessing different constructs. Coming at the issue from another perspective, in listing the many clinical problems to which the social skills construct has been applied, McFall (1982) commented "the concept's use has become so widespread that it begins to strain our credibility and arouse our suspicions. How is it possible for any one psychological concept to be invoked so widely and still retain any specificity or meaning or utility?" (p. 2).

GLOBAL DEFINITIONS OF COMPETENCE

The absence of an agreed upon definition does not come from a lack of effort. A sampling of the many different global social competence definitions is found in Table 1.1. The following review compares and contrasts past definitional efforts in order to shed new light on the social competence construct. Before contrasting these definitions, it is useful to outline some of their common elements. First, at the core of most definitions is the notion of *effectiveness* (Cavell, 1990; Rubin & Rose-Krasnor, 1992). Second, the focus of interest is on the behavior of the individual (Dodge & Murphy, 1984). Third, effectiveness is defined within a social context (Cavell, 1990; Rubin & Rose-Krasnor, 1992). Rubin and Rose-Krasnor (1992) add that many definitions imply that competence also involves the successful manipulation of others to meet needs and goals but are careful to note that "manipulation" is not to be understood in the Machiavellian sense. Rather, in the spirit of Ford's (1982) definition, these authors suggest that "appropriate means" is a necessary component of competent behavior. This discussion points to the relativity and subjectivity common to these definitions. Operational criteria are missing and circularity is evident in that one needs to define equally elusive terms, such as "effective" and "appropriate", in order to come to an understanding of competence.

Turning to contrasts, Gambrill and Richey (1986) outlined six distinguishing dimensions in their review of competence definitions: (1) clarity, (2) degree to which the long- and short-term consequences are considered, (3) degree to which personal goals and outcomes (i.e., self) and social goals and consequences (i.e., others) are considered, (4) degree to which "societal standards" are considered, (5) relative attention to negative and positive consequences, and (6) whether or not there is a focus on process and/or outcomes. These dimensions add yet more relativity to the determination of competence and make room for the notion that responses can be judged to be "more" or "less" so. For example, a given response can be deemed more competent to the degree that its overall impact, in the balance, weighs more toward the positive, that is, if it has beneficial long-term consequences that outweigh the more short-term considerations. Similarly, although two responses have similar negative consequences, one could be judged more competent on the basis of the relative weight of its positive consequences. Moving from the personal to the social context, a response that is seemingly competent because of its congruence with one's goals and desired outcomes can be deemed incompetent because of its negative consequences to others or failure to conform to societal standards.

Alternatively, some have categorized different attempts to operationalize the various definitions to derive the meaning of the competence construct (Cavell, 1990; Dodge & Murphy, 1984). In their review, Dodge and Murphy (1984) categorized past operational efforts as follows: (1) measurements of specific behaviors constituting competence as determined by researchers on an a priori basis; (2) judgments of external raters; and (3) measures of

Table 1.1. Sample Definitions of Social Competence

Author(s)	Definition
Attili (1990)	social success (p. 241)
Canino, Costello, & Angold (1999)	'ability to function appropriately in interpersonal interaction' (cited in John, 2001, p.182)
Conger & Conger (1982)	'degree to which a person is successful in interactions or transactions taking place in the social sphere' (p.314)
Duck (1989)	'ability to achieve desired outcomes and show adaptability across contexts' (p. 92)
Ford (1982)	'the attainment of relevant social goals in specified social contexts, using appropriate means and resulting in positive developmental outcomes' (p. 323)
Goldfried & D'Zurilla (1969)	'the effectiveness or adequacy with which an individual is capable of responding to various problematic situations which confront him' (p. 161)
Gresham (1986)	'evaluative term based on judgments that a person has performed adequately' (p. 145)
Greenspan (1981)	'that portion of an individual's perceived effectiveness in interpersonal situations and social roles which is attributable to qualities of temperament, character, and social awareness' (p. 24)
McFall (1982)	'quality or adequacy of a person's overall performance in a particular task' (p. 12)
Rubin & Rose-Krasnor (1992)	'the ability to achieve personal goals in a social interaction while maintaining positive relationships with others over time and across situations' (p. 285)
Taylor & Asher (1984)	'the formulation and adoption of personal goals that are appropriate and adaptive to specific social situations and implementing effective behavior strategies for achieving goals' (p. 57)
Trower (1982)	'the possession of the capability to generate skilled behavior' (p. 419)
Waters & Sroufe (1983)	'an ability to generate and coordinate flexible, adaptive responses to demands and to generate and capitalize on opportunities in the environment (i.e., effectiveness)' (p. 80)
White (1959)	'an organism's capacity to interact effectively with its environment' (p. 297)
Yeates & Selman (1989)	'the development of the social-cognitive skills and knowledge, including the capacity for emotional control, to mediate behavioral performance in specific contexts, which in turn are judged by the self and others to be successful and thereby increase the likelihood of positive psychosocial adjustment' (p. 66)

internal structures, such as cognitive skills, that may be associated with competent responding. Measurements of specific behaviors are typically conducted via direct observation in the natural environment, contrived laboratory tasks, or role-played interactions. Dodge and Murphy (1984) raised an important issue with this approach. They consider such behaviors to be the components of a performance eventually deemed competent but suggest that some researchers judge the behaviors, removed from the performance context, to be either competent or not. In another approach thought to lend some social validity to the process, researchers have often relied on the judgments of external raters to determine competence. A widely used example is the use of sociometrics to determine the degree to which a given child is liked or disliked by the peer group. Liked or "popular" children are considered to

be competent. Such measures, however, fail to identify specific behavioral targets and their clinical usefulness is thus limited to screening (Dodge & Murphy, 1984). A third approach is used to identify internal structures. For instance, one could objectively measure cognitive or behavioral responses, such as problem-solving skills, and label high scorers as competent. Whether such skills are later found to be prerequisites for the performance of some other behavior judged to be competent is a separate issue (Dodge & Murphy, 1984).

In making this distinction, Dodge and Murphy (1984) refer to the sometimes overlooked difference between the terms social skills and social competence. Most often, the term *social skills* refers to the specific abilities or behaviors that allow for effective responding in a social task (e.g., Cavell, 1990; Gambrill & Ritchey, 1986). In contrast, *social competence* typically refers to an evaluative judgment by outside observers as to the adequacy of performance in a social task (e.g., McFall, 1982). Thus, social skills are the more molecular responses underlying a socially competent performance.

Another use of the term social competence is to describe a more trait-like ability (Gambrill & Ritchey, 1986; McFall, 1982). McFall (1982) distinguished between such trait-like definitions and more molecular alternatives in his landmark paper. Used more frequently, trait definitions assume a general underlying skill or capability rather than specific individual skills. As an example, consider the definition offered by Trower (1982), in which competence is described as "the possession of the capability to generate skilled behavior" (p. 418). Such definitions are nomothetic in nature and are not based directly on observable behavior. As a trait approach, both temporal and cross-situational consistency of behavior are presumed. In his analysis, McFall (1982) points out that these definitions can be challenged on the basis that they are tautological. An individual who performs effectively in a social task is assumed to be "high" in social skill, yet this skill level is only inferred not observed. Conversely, the effective performance is attributed to his or her high level of social skill, thus leading to a circular definition (McFall, 1982).

Molecular definitions represent the opposite pole in the conception of personality in psychology (McFall, 1982). Created as an alternative to trait definitions, molecular approaches focus solely on observable, learned units of behavior and thus avoid some of the pitfalls noted above. Molecular definitions are idiographic. Temporal and/or cross-situational consistency is not assumed. In balance, McFall (1982) was careful to note that this approach has its own set of difficulties. One problem is that a description of how behavior should be combined to form more meaningful units of analysis is not offered. Another involves its idiographic nature. In the extreme, an approach tailored to individuals cannot yield more general measures of competence. Finally, the molecular approach can fall prey to the reductionistic fallacy. That is, as smaller and simpler units of analysis are employed to describe behavior, it is likely that what is being described is no longer reflective of reality.

MODELS OF SOCIAL COMPETENCE

The global social competence definitions are more useful at the theoretical than applied level. They serve to anchor further investigation efforts to an individual's effectiveness in a social context, yet offer little in terms of actually operationalizing competence. More comprehensive models, in contrast, have gone further in this respect and have generated a wide range of possible targets for intervention in the process (see Table 1.2 for a summary of models and targets). These models have also allowed for the organization and integration of the various component skills associated with competence. Whereas the more global definitions focus on the "ends" rather than the "means" by which such ends are achieved (Goldfried & D'Zurilla, 1969), a number of models have more directly attended to the theorized processes underlying

Table 1.2. Suggested Target Skills and Assessment Methods

Model	Targets	Assessment
Behavioral-Analytic Model (Goldfried & D'Zurilla, 1969)	• Situational analysis • Response enumeration • Response evaluation	• Situational analysis –Direct naturalistic observation –Self-monitoring of problematic situations –Interviews with others who would observe the individual in problematic situations • Response Enumeration –Direct naturalistic observation –Analogue role plays –Video/written simulation of problematic situations with interview or questionnaire response formats • Response evaluation –"Significant others" judge the degree of effectiveness/ineffectiveness of relevant behaviors
McFall's Reformulated Model of Social Skills (McFall, 1982)	Social information processing targets: • Decoding skills (i.e., reception, perception, interpretation) • Decision skills (i.e., response search, response test, response selection, utility evaluation) • Encoding skills (i.e., execution, self-monitoring)	• Identify specific skills required for competent performance of specific tasks • Measure skills in specific persons • Use the results to predict, explain, treat • Utilize a problem-focused skills assessment
Social Information Processing Model (Dodge & Murphy, 1984)	Social information processing targets: • Decoding skills • Decision skills • Encoding skills	• Criterion-based performance evaluation of task outcome • Behavioral observation in naturalistic environment • Behavioral observation in analog situations • Rating by others (i.e., sociometrics, teacher report)

(Continued)

Table 1.2. (Continued)

Model	Targets	Assessment
Social Information Processing Model (Crick & Dodge, 1994)	• Encoding and interpretation of cues –Causal attributions –Intent attributions • Clarification of goals –Social goals • Response access/construction –Behavioral responses • Response decision –Response evaluation based on moral rules and values –Outcome expectations –Self-efficacy evaluations	• Encoding and interpretation of cues: –Hypothetical social scenarios (e.g., Why do you think this situation happened?, Why a negative outcome occurred) • Clarification of goals –Hypothetical situations: (Describe why they'd follow a course of action, or choose a preferred goal) – Analogue situations: (e.g., Infer game-playing goals from actual play of game with experimenter) • Response access/construction –Size of response repertoire –Content of responses –Order in which access types of responses • Response decision –Likert-type ratings of possible responses to hypothetical situations –Ask what would happen if one was to respond to a situation in a particular manner (quantity and quality assessed) –How confident that they can produce particular behaviors (e.g., aggressive behavior)

Tri-Component Model of Social
Competence
(Cavell, 1990)

- Social adjustment "statuses" (i.e., health, legal, academic, occupational, socioeconomic, social, emotional, familial, and relational)
- Social performance (e.g., rate of social interaction)
- Social skills (e.g., overt behavior, social cognitive skills, emotion regulation skills)

- Identification of those with skill deficits (peer nomination and rating procedures, parent and teacher checklists, self-report measures)
- Situational analysis of social performance for relevant and problematic situations
- Component-skills-by-situation assessment
  – Identify specific skill deficits by isolating each component process (e.g., encoding) while holding other component processes constant

Social Competence Prism
(Rose-Krasnor, 1997)

"Index/middle level" indices
  - Social success
  - Social self-efficacy
  - Quality of interaction
  - Quality of relationships
  - Group status
  - Social self-efficacy
"Skills level" indices
  - Perspective taking
  - Communication
  - Empathy
  - Affect regulation
  - Social problem solving
  - Goals and values

"Index/middle level"
  - Social goal attainment
  - Sociometric status
  - Friendship nominations
  - Friendship quality
  - Attachment security
  - Quality of social support networks
"Skills level"
  - Targets should be assessed at the index and skills levels; however, ultimately index level assessment is best

(Continued)

Table 1.2. (Continued)

Model	Targets	Assessment

Quadripartite Model (Felner et al., 1990)	• Cognitive skills and abilities
	  –Fund of information
	  –Processing and acquisition skills
	  –Decision-making skills
	  –Schemas/beliefs
	  –Attributional style
	• Behavioral skills
	  –Assertiveness, negotiation, support, information acquisition, conversational skills, prosocial behavior
	• Emotional skills
	  –Affect regulation
	  –Affective capacities for forming relationships
	• Motivational and expectancy sets
	  –Value structure
	  –Moral development
	  –Sense of self-efficacy and control
		• Skill levels and abilities in each of the four core areas, as well as interdependencies and interrelationships among skills
		• Appropriateness of behavior for the particular context

competence (e.g., Crick & Dodge, 1994; Dodge, 1986; Goldfried & D'Zurilla, 1969; McFall, 1982; Rubin & Krasnor, 1986). These process models are context specific and, as such, seek to identify critical social goals and tasks (Rose-Krasnor, 1997). Yet other models focus on the often overlooked distinction between competence and the indices used to gauge it. Taking a very different approach, the developers of these models attempt to learn more about the construct by scrutinizing and synthesizing past operationalization efforts (e.g., Cavell, 1990; Dodge & Murphy, 1984; Felner, Lease, & Phillips, 1990; Rose-Krasnor, 1997). What follows is a selective review of some of the models of each type.

Early influential models stress the role of context and situation specificity in operationalizing the competence construct (e.g., Goldfried & D'Zurilla, 1969; McFall, 1982). In an attempt to tie competence to an empirical structure that would facilitate research, Goldfried and D'Zurilla (1969) developed a five-step behavioral-analytic model outlining a definition of social competence, as well as a blueprint for developing an adequate measure of it. The specific steps proposed in the model include (1) situational analysis, (2) response enumeration, (3) response evaluation, (4) measure development, and (5) evaluation of the measure. A critical situation is defined as one that occurs with some frequency, presents a difficult response decision, and results in a range of possible responses in a given population. Situation identification can be accomplished through a variety of methods, including direct observation by self or others, interviews, and surveys. In the next step, a sampling of possible responses to each situation is obtained. Suggested procedures for generating response alternatives include direct observation, role plays, and simulations in video and/or written formats. Next, the enumerated responses are judged for effectiveness by "significant others" in the environment. An important element is that a consensus among the judges must emerge or else the particular item is removed from future consideration. In the last two steps, a measure is developed and evaluated. Featuring "built-in" validity, the item content for the measure is generated from the situation analysis and the scoring criteria are empirically derived from the effectiveness judgments. Typical measure- evaluation procedures (e.g., reliability, validity) proceed from this point in the model.

The behavioral approach adopted in this model was viewed as an advance in that it defined competence "operationally by the individual's interactions with his environment . . . rather than being based on personality characteristics, or underlying dynamics" (Goldfried & D'Zurilla, 1969, p. 158). Instead of focusing on overall performance outcomes, such as peer acceptance or occupational success, these authors defined social competence as the ability to select and enact the most appropriate behavioral response in *critical* social situations. As in more current behavioral conceptualizations, the response concept was inclusive, incorporating motoric, verbal, cognitive, and/or physiological dimensions. In fact, so-called "facilitation of competence" intervention efforts proposed by the model developers hinged on training in a "cognitive problem-solving strategy for dealing with problematic situations" (p. 187). Now very well known in the research and applied literatures, this problem-solving strategy entails: (1) the generation of a careful statement and definition of the problem, (2) a search for possible alternative solutions, (3) the selection of the best response alternative based on possible consequences, and the (4) behavioral enactment of the solution and observation of consequences. All in all, the Goldfried and D'Zurilla (1969) model has been influential in terms of generating competence assessment measures (e.g., D'Zurilla, Nezu, & Maydeu-Olivares, 2002; Goddard & McFall, 1992; Grover, Nangle, & Zeff, 2005) and has also contributed to the development of cognitive problem-solving interventions (e.g., D'Zurilla & Nezu, 1999; Spivack & Shure, 1974).

One of the most influential cognitive models of social behavior has roots in the social problem-solving approach outlined by Goldfried and D'Zurilla (1969). Similar to the behavior-analytic model, Dodge's social information processing model (Crick &

Dodge, 1994; Dodge, 1986) stresses the importance of situational context in determining competence. Dodge and colleagues, however, focus more directly on the cognitive processes underlying response selection, enactment, and evaluation. Using a computer metaphor, the more recently reformulated social information processing model outlines a six-step nonlinear process with various feedback loops linking children's social cognition and behavior: (1) observation and encoding of both external and internal cues during an interaction, (2) interpretation and mental representation of these cues, (3) clarification of goals, (4) response access from long-term memory or construction, (5) response decision, and (6) behavioral enactment (Crick & Dodge, 1994). The model proposes that children enter a social situation with biologically limited capabilities and a database of memories of past experiences. They selectively attend to, encode, and interpret particular cues. Interpretation is complex, and may involve one or more sub-processes, including causal analyses, inferences, attributions, outcome expectancies, and self-efficacy evaluations. These interpretations are guided by, and can alter, information stored in the database. Subsequent to the selection of a goal or desired outcome for the situation, children access possible response alternatives or construct new ones if the situations are novel. These response alternatives are evaluated based on expected outcomes, self-efficacy, and appropriateness. The most positively evaluated response is selected, and behavioral enactment triggers a recycling of the processing steps.

This model enjoys rich empirical support derived mainly from studies of aggressive children. In sum, compared to less-aggressive peers, aggressive children tend to be less attentive to relevant social cues, less accurate in interpreting peer intention cues, more likely to endorse social goals that damage rather than enhance relationships, and have a social repertoire of predominately aggressive response alternatives (cf., Crick & Dodge, 1994). Furthermore, aggressive children are more likely to believe that they are good at being aggressive, that aggression leads to positive outcomes, and that aggression is a legitimate response. The information processing models proposed by Dodge and his colleagues and others (e.g., Ladd & Crick, 1989; Rubin & Krasnor, 1986) have had a very significant impact on the growing trend of intervening at the social-cognitive level (e.g., Guerra & Slaby, 1990; Hudley & Graham, 1993). For example, Hudley and Graham (1993) used "reattribution training" to reduce hostile attributions of intent in both hypothetical and laboratory simulations and decrease teacher-rated aggression in a sample of African-American boys. Follow-up mediation analyses led these authors to conclude that there was a causal relationship between biased cognitions and aggressive behavior.

Acknowledging the complex and elusive nature of social competence, Cavell (1990) sought to simplify and organize past definition and operationalization attempts by proposing a tri-component model, in which the construct is comprised of three subcomponents: social adjustment, social performance, and social skills. He contends that the various measures of social functioning are not just assessing competence in different ways but actually assessing different constructs. These measures routinely tap into more or less than what they purport to assess. For example, product measures of social functioning, such as global judgments of competence or peer acceptance ratings, actually assess the cumulative effects of multiple aspects of functioning (e.g., academic) and many nonperformance factors (e.g., physical appearance). Another example is that requisite skills measures assess skills that also determine nonsocial functioning (e.g., verbal intelligence) or molecular skills (e.g., eye contact) that bear little relation to social functioning.

The tri-component model integrates past operational efforts into a single hierarchical framework and is predicated on two key assumptions. First, neither the determinants nor the products of social functioning can be ascertained without an examination of performance itself. Second, social functioning is best assessed in terms of the adequacy of performance within relevant social tasks. *Social adjustment* sits at the top of this hierarchy and is defined as

the extent to which an individual achieves societally determined, developmentally appropriate goals. These goals are conceived of as different "statuses" to be achieved by members of a society (e.g., health, legal, academic or occupational, socioeconomic, social, emotional, familial, and relational statuses). Translating these goals into social adjustment measures, for example, might include assessing familial status by makeup or degree of cohesion or assessing relational status by friendship quality or dating frequency. This is similar to past operational definitions that emphasize products, but adjustment is considered as a separate construct rather than a direct product of social functioning. The degree to which any given index is determined by social interactions or other factors remains an empirical question to be investigated. Next in the hierarchy is *social performance* or the degree to which an individual's responses to relevant social situations meet socially valid criteria. Performance is viewed as distinct from hypothesized skills and presumed products, and the criteria should be task-specific and not simply based on some presumed intrinsic social value (e.g., rate of social interaction). This empirical and situation-specific view of performance is at the heart of a number of competence models (e.g., Dodge, 1986; Dodge & Murphy, 1984; Goldfried & D'Zurilla, 1969; McFall, 1982), and the Goldfried and D'Zurilla (1969) model is suggested as a very useful vehicle for developing suitable measures. At the lowest level are *social skills*, which are defined as the specific abilities allowing for the competent performance within social tasks. Consistent with the social information processing models (e.g., Dodge, 1986; Dodge & Murphy, 1984; McFall, 1982), the tri-component model encompasses component processes occurring in a sequence (e.g., encoding, decision making, and response enactment), as well as the full range of overt, social-cognitive, and emotion-regulation skills. Parting with a strict skills-deficit approach, social skills are considered to be necessary but not sufficient determinants of effective social performance.

The tri-component model was intended to simplify the competence construct and thereby increase its applied utility. In discussing its applied implications, Cavell (1990) recommends a three-phase approach to assessment paralleling that of Dodge and his colleagues (e.g., Dodge, McClaskey, & Feldman, 1985; Dodge & Murphy, 1984). The first phase is the *identification* of those in need of further assessment and possible intervention. This involves the use of broadband measures similar to those described at the social functioning level of the tri-component model. The second phase is *situational analysis* and entails determining those situations that occasion inadequate social behavior. Situation identification can be accomplished via the methods described by Goldfried and D'Zurilla (1969), and the subsequent steps in that process (e.g., eliciting typical responses, having significant others rate the difficulty of a given situation) are quite similar to social performance assessment. In the final *component-skills-by-situation* phase, assessment focuses on determining specific skill deficits within the identified situations. Here, social validity is emphasized in that the links between the skills deficits and the identified contexts or situations must be maintained. Recall that the identification and remediation of skills deficits is not sufficient, and further assessment may have to target factors such as opportunities to perform, motivation, and the knowledge and affective meanings associated with particular situations (cf., Cavell, 1990).

Like the tri-component model, the social competence prism proposed by Rose-Krasnor (1997) is a multilevel framework separating summary indices from component skills. One difference is that the prism incorporates a *theoretical level* defining social competence in very global terms as "effectiveness in interaction." The definition remains theoretical because it cannot be reduced to any single index or behavior and implies that competence is transactional, context dependent, and relative to the specific goals of the individual. Similar to the tri-component model, the prism middle or *index level* is comprised of summary indices of competence, such as relationships, group status, and social self-efficacy. Unique to the prism, however, is the distinction between self (i.e., individual's own needs take priority) and

other (i.e., interpersonal connectedness take priority) aspects of competence. In her review, Rose-Krasnor (1997) concludes that social interaction "represents an ongoing dialectic between self- and other-oriented priorities" (p. 121). The bottom or *skills level* includes the specific abilities and motivations underlying competence, such as perspective taking, communication, empathy, affect regulation, and social problem solving. Importantly, the prism approach emphasizes that competent performance is tied to an individual's goals and values, which help to direct and motivate behavior. For example, a child with peer dominance goals may resort to aggression despite having the capacity for more prosocial behavior (cf., Rose-Krasnor, 1997). Thus, like the tri-component model, the prism framework points to motivational influences as a possible limitation of the skills-deficit approach. For applied purposes, the index level is of most utility in the identification of individuals in need of treatment, whereas the skills level is most useful in the selection of targets for intervention.

The quadripartite model of social competence put forth by Felner and colleagues (Dubois & Felner, 1996; Felner et al., 1990) nicely illustrates just how wide ranging the targets for intervention can be. The essential core elements of competence are theorized to be comprised of four superordinate sets of skills, abilities, and capacities: (1) cognitive skills and abilities, (2) behavioral skills, (3) emotional competencies, and (4) motivational and expectancy sets. In an interesting departure from the previously reviewed models, the authors argue that defining competence in task-specific terms is too narrow to help in the generation of a more generally applicable definition of competence and contend that there are certain "superordinate" or core competencies that are essential to overall human development. As such, these core skills and abilities necessarily cut across multiple domains of functioning and are not limited to social interactions. In this sense, returning to Cavell's (1990) observations, disentangling the social aspects from associated competence domains at either the conceptual or measurement levels may not be possible. *Cognitive skills and abilities* refer to the cultural and social knowledge necessary for effective functioning in society. Specific examples include academic and occupational skills and abilities, decision-making ability, and the processing of information. Illustrating the superordinate concept, these authors distinguish between *inter*personal and *im*personal problem-solving skills and contend that both are necessary components of social competence. The *behavioral skill* set encompasses knowledge of behavioral responses and the ability to enact them. Specific skills set examples include negotiation, role or perspective taking, assertiveness, and conversation skills. Affective regulation and coping capacities comprise the *emotional competencies* that facilitate socially competent responding. The inability to modulate affect can render an individual unable to implement acquired skills or abilities. Additional emotional competencies, such as the development of trust and responding to emotional cues, are required for an individual to form positive bonds with others. Finally, these authors emphasize that competent responding requires more than just behavioral knowledge. As in the prism model, the quadripartite approach to competence emphasizes the importance of social goals and values. A fourth category comprised of *motivational and expectancy sets* includes an individual's value structure, moral development, and sense of efficacy and control. More than knowledge, behavioral skills, and affective regulation are required. If the actions or outcomes are not valued, an individual may not be motivated to execute a competent response.

FROM THEORY TO PRACTICE: SKILLS TARGETED IN INTERVENTIONS

The social competence models propose a wide range of potential intervention targets (see Table 1.2) and help to organize, prioritize, and facilitate the assessment process. In

practice, however, target selection is typically not based on any systematic adherence to these comprehensive models. Nevertheless, it appears as though these models and the accompanying theorizing have exerted an influence, even if indirect, on the applied literature. Our less-than-exhaustive review of more recently published social skills training studies indicates that these interventions are increasingly targeting the full range of skills and abilities identified in the models. For example, more comprehensive, curriculum-based interventions are targeting a variety of social cognitive and emotion regulation skills and abilities, as well as more "superordinate" competencies such as empathy and self-awareness (e.g., Conduct Problems Prevention Research Group, 2002; Frey, Nolen, Van Schoiack-Edstrom, & Hirshstein, 2005). In closing this chapter, we describe a sample of recent interventions selected to represent a range of populations and procedures for identifying target skills.

An example of an intervention having a clearly explicated basis in a comprehensive social competence model is the Second Step program recently evaluated by Frey and colleagues (2005). Based on the social information processing models (Crick & Dodge, 1994; Lemerise & Arsenio, 2000), this program is described as a universal social-emotional intervention guided by the concept that children's behaviors are influenced by their goals, beliefs, emotions, information processing, and performance skills. It is administered by classroom teachers who incorporate instruction into the regular academic schedule and cover three units: (1) empathy training, (2) impulse control and problem solving, and (3) anger management. In the empathy unit, children learn how to encode and interpret relevant contextual and expressive cues in the hope of modifying intent attributions from hostile to benign. Specific core skill targets include emotional understanding, prediction, and communication. In the second unit, basic problem-solving strategies are taught with an emphasis on getting children to adopt more positive social goals (e.g., safety, fairness) and consider the possible social-emotional benefits of mutually rewarding interactions when evaluating solutions. Finally, in the anger management unit, children learn cognitive behavioral coping strategies, such as the use of self-talk and attention control. Various instructional modalities are employed, including scripted lesson plans, concept introduction via picture and video stimuli, performance-based instruction using cognitive behavior therapy techniques, questions designed to promote perspective taking and problem solving, teacher and videotaped modeling, role play and skill rehearsal, and coaching, as well as efforts to integrate the curriculum content into the regular academic program.

Frey et al. (2005) evaluated the Second Step program using a large sample of children in the 2nd and 4th grades tracked across two years of implementation. Prior to the start of the intervention, the teachers received training in program content and had the opportunity to practice teaching lessons. In addition, they had twice-monthly access to program consultants during the implementation phase. A multilevel, multi-informant assessment approach incorporating self, peer, and teacher reports, as well as vignette- and interview-based measures of social cognition and direct observations of dyadic interactions, was used to evaluate the intervention. Compared to children in the control group, intervention children were more likely to endorse prosocial goals and egalitarian reasons for satisfaction, behave less aggressively, and require less adult intervention in resolving conflicts. Teachers reported significant increases in social competence and decreases in antisocial behavior in the first year for intervention children but not in the second year. No changes in attributions and intentions were found. When children were grouped based on goals and attributions, follow-up analyses indicated that attributing hostile goals to others was predictive of more aggressive intentions, lower social competence, and increased antisocial behavior as rated by teachers.

In practice, most interventions employ a nomothetic approach to target skill identification. Individuals in need of intervention are identified at the social functioning (tri-component model; Cavell, 1990) or index (prism model; Rose-Krasnor, 1997) level and trained in a

preordained set of social skills that are not tailored for them and may (e.g., linked to peer status in group studies) or may not (e.g., rationally derived by developers) have an empirical basis. For example, as part of a cognitive-behavioral school-based intervention for adolescents with social anxiety disorder, Fisher, Masia-Warner, and Klein (2004) include a component called Social Skills for Success that is comprised of four training sessions: (1) initiating conversations, (2) maintaining conversations and establishing friendships, (3) listening and remembering, and (4) assertiveness. As part of an overall intervention, including psychoeducation, realistic thinking, exposure, and relapse prevention components, the social skills training module involves the introduction of the skill concept and rationale, facilitated group discussion, skill demonstration and modeling through role plays, and positive and corrective performance feedback. Although no justification for targeting the four specific skills is provided, the authors do provide a rationale for intervening with social skills more generally. In etiological models, social skills deficits are viewed as producing negative expectations in social situations and contributing to increases in anxiety and avoidance (Spence, Donovan, & Brechman-Toussaint, 1999). Withdrawal results in lessened opportunity to practice and improve social skills, thus maintaining the deficits (Fisher et al., 2004). Adding to their rationale, these authors cite studies showing that socially anxious youth often have skill deficits and respond well to social skills training. The precise nature, however, of this proposed skills and anxiety relationship is complex and a matter of some controversy within the field (see Chapter 11 for a full discussion). Some successful interventions have included skills instruction (e.g., Beidel, Turner, & Morris, 2000), whereas others have not (Heimberg, Salzman, Holt, & Blendell, 1993). Mixed findings such as these illustrate the need for including outcome assessment at the skills level in addition to the more commonly employed social functioning or index level.

Despite their importance in many of the comprehensive models, interventions rarely attend to contextual variants and situation specificity at the idiographic level. In an exception, O'Reilly et al. (2004) evaluated the effectiveness of a problem-solving and an external control intervention to teach social skills to five adults with mild intellectual disabilities using a single participant alternating treatments design. In selecting the two target skills, these authors conducted semi-structured interviews with the participants and four direct care staff at the group home in which the participants resided. By consensus, the skills "appropriately managing conflict with a housemate" and "appropriately responding to corrective feedback from care staff" were chosen for intervention. Along with the therapist, the participants and staff generated a list of specific situations requiring the use of these two skills. "Managing conflict" situations included watching television, kitchen use, and breaking personal belongings; whereas "responding to corrective feedback" situations included bathroom not cleaned, living room not vacuumed, and kitchen untidy. In the third step, the first author developed task analyses of the two skills by analyzing videotapes of four university student dyads asked to role play responses in the identified situations. The resulting task analyses were used to measure participant performance and train the skills. Training and generalization sessions often occurred in the rooms associated with the situations (e.g., kitchen area, living room). Two different methods were used to train the skills. Problem-solving training began with a rationale followed by a description of the situation, verbal/behavioral modeling of the requisite social rules and behaviors, verbal/behavioral role play, and feedback. External control training was the same as the problem-solving approach except that participants were not asked to verbalize the social rules. Both intervention types proved effective in teaching the two skills and competent performance was maintained at a 4-week follow-up assessment.

Some interventions blend nomothetic and idiographic approaches by using a curriculum with preselected targets, but adapting some intervention components to meet individual participant needs. For instance, in the earlier reviewed social anxiety intervention, Fisher et al. (2004) had adolescents generate fear hierarchies rank ordering their most anxiety-provoking

social situations. Group leaders help the teens identify specific contextual variants that make the situations more or less distressing. In subsequent sessions, the teens participate in exposure trials in which they are asked to engage in increasingly distressing interactions identified in their hierarchies. They also attend planned, yet naturalistic, social events (e.g., bowling, going to the mall, or miniature golf), giving them the opportunity to practice trained skills and be exposed to previously avoided situations. As part of a cognitive-behavioral intervention for middle-aged and older adults with chronic schizophrenia, Granholm et al. (2005) slightly modified an existing social skills curriculum to fit the particular needs of their participants. For example, the training methods helped to compensate for cognitive impairments and age-relevant role-play situations (e.g., talking to a doctor about eyeglasses) and problem-solving tasks (e.g., finding transportation, coping with vision and hearing problems) were part of the curriculum.

SUMMARY AND CONCLUSIONS

Defining and operationalizing the social competence construct has proven to be a challenge. Reflective of its importance, the lack of consensus regarding definition and measurement has done little to slow the demand for the construct. As seen in this review, the social competence construct has continued to flourish over the past three decades and is now viewed as encompassing a rather wide array of skills and abilities. Measurement has struggled to keep pace with the expanding nature of the construct, and a number of critical validity questions have been raised. Global definitions focus on the notion of effectiveness within in a social context. Going further with respect to operationalization, some comprehensive models identify critical social goals and tasks along with proposed requisite cognitive, emotional, and behavioral skills and abilities. Yet other models serve to clarify past assessment attempts and address important validity questions. Regarding intervention, perhaps the most notable aspect of these models is the separation of social skills, social performance, and social adjustment. The focus of intervention is typically on the skill level, whereas the identification of those in need of treatment and evaluations of effectiveness occurs at the performance and/or adjustment levels. Ideally, assessment would occur at all three levels, but complete convergence would not be expected for two reasons. One is that social skills are considered to be necessary but not sufficient determinants of social performance. The other is that social adjustment is not considered to be a direct product of social performance and is likely impacted by a range of other factors.

Definitional efforts and the comprehensive models have certainly influenced intervention practices, though not to the desired extent. Our brief review of more recently published intervention studies showed that some are targeting the full range of skills and abilities identified in the models. To more fully bridge the conceptual and applied literatures, however, we will need to take steps to ensure increased correspondence between selected models and targets, a more idiographic approach to target selection, and enhanced sensitivity to contextual variants and situation specificity in the assessment of interventions. Finally, as discussed above, we will need to make clear distinctions amongst the skills, performance, and adjustment levels, bearing in mind that convergence may not occur.

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Chapter 2
Social-Cognitive Models and Skills

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SOCIAL-COGNITIVE MODELS AND SKILLS

Researchers studying social competence have been interested not only in specific social skills but also in the types of social-cognitive processes that might underlie individuals' behavioral choices. A variety of theories propose that individual differences in social information processing skills may help explain why people confronted with the same social situation may choose to act in very different ways. For example, two children may be teased by a peer. One child may perceive this as harmless play and may laugh, whereas another child may interpret this as mean and threatening and may choose to act aggressively toward the peer. Many theorists (e.g., Crick & Dodge, 1994; Dodge, 1986; Ladd & Crick, 1989; Lemerise & Arsenio, 2000) suggest that distortions or deficiencies in social information processing may lead to maladaptive behavior. Thus, in addition to focusing on improving specific social behaviors in social skills intervention programs, it seems that social-cognitive variables can be an important target for treatment as well (e.g., Guerra & Slaby, 1990; Hudley & Graham, 1993). In fact, social-cognitive processes can be viewed as social skills themselves (see Chapter 1, for further discussion). In this chapter, several social-cognitive models will be reviewed and the ways in which social-cognitive variables have been assessed in children, adolescents, and adults will be presented.

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THEORETICAL MODELS OF SOCIAL INFORMATION PROCESSING

Among the most influential social-cognitive models in recent years is the model of social information processing proposed by Crick and Dodge (1994), which is a modification of a model originally suggested by Dodge (1986). According to this model, individuals approach a specific social situation with social knowledge, schemas (e.g., scripts for how to join a group), and a database of memories of their past social experiences (e.g., memories of having many group entry attempts rejected). They then receive as input a set of social cues (e.g., group members rejecting their entry attempt), and their behavioral response is a function of how they process those cues. These processing steps include (1) encoding of external and internal cues, (2) interpretation of those cues, (3) selection of goals, (4) response access, (5) response decision, and (6) behavioral enactment. Importantly, although Crick and Dodge propose six steps of processing, they do not view social information processing as strictly linear in nature. Instead, they believe that each processing step may influence the others through a series of feedback loops.

As a person interacts with others, he or she initially encodes and interprets social cues. During these first two processing steps, the individual is guided by relevant social knowledge that is based on previous experiences. This knowledge may play an important role in the social attributions a person makes, such as interpretations of a peer's intent. For example, a child who has a history of being frequently victimized by peers is apt to attribute an act, such as a peer breaking the child's toy, to the peer's hostile intentions rather than to accidental circumstances.

In the third step of social information processing, the person generates possible goals for the situation. The goal given highest priority by the individual is likely to elicit related behavioral strategies. For instance, a retaliation goal is associated with aggressive strategies. In the fourth step of processing, the individual engages in response access, searching long-term memory for possible behavioral strategies for the situation. If, for example, a person's social strategy repertoire contains primarily aggressive responses, it is likely that a variety of possible aggressive strategies will be accessed.

In the fifth step of social information processing, the individual decides on a specific behavioral response. At this step, several social-cognitive constructs are likely to come into play. When deciding upon a particular response, the person should feel confident that he or she could successfully produce that behavior (i.e., feelings of self-efficacy). In addition, the individual should expect that the behavior would result in positive outcomes (i.e., outcome expectations). Finally, the person should view the response as being appropriate according to one's own moral rules or values (e.g., beliefs about the legitimacy of aggression.). Assuming that such positive evaluations are made regarding the selected behavior, the sixth processing step involves enacting the response choice.

Notably, though six steps of information processing are proposed by Crick and Dodge (1994), the model does incorporate feedback loops. For example, it may be that those who tend to interpret a protagonist's intent as hostile may be prompted to place higher priority on retaliation goals, but it also may be that those who are greatly concerned about retaliation may be predisposed to interpret someone's intentions in a hostile manner. Although Crick and Dodge suggest that each social-cognitive variable may predict behavior, they also assert that behavior is best predicted by multiple variables.

Lemerise and Arsenio (2000) have proposed some modifications to the Crick and Dodge (1994) model, resulting in an integrated model of emotional processes and cognition in social information processing. Briefly, Lemerise and Arsenio assert that emotion plays a critical role in each step of the model. Individuals who are confronted with a social situation face

that encounter with a certain emotional style (e.g., intensity of expressing and experiencing emotions) and a specific level of arousal or mood. As an individual interacts with another person, that person's affective cues are an important source of information to be encoded and interpreted. Likewise, goal selection, as well as response generation, decision, and enactment can all be impacted by the emotional experience of the individual and the interaction partner. For example, aroused negative emotion in response to a partner displaying negative affect may contribute to the selection of an antisocial goal and ultimately an aggressive response.

An emotion component is also included in a model of social-cognitive processing proposed by Ladd and Crick (1989). They suggested that in response to a specific social situation, individuals pursue certain goals, but that self-perceptions and emotions play an important role in social information processing as well. The basic unit of Ladd and Crick's (1989) model is the social exchange (e.g., an interaction between a child and peer), and the focus is on what factors (e.g., goal priorities, attributions about the self, emotional state) precede behavioral enactment and what factors are involved in response evaluation. For example, a prosocial goal and an attribution that one's social success is due to effort may motivate the individual to select prosocial behavioral strategies. Then, as the person assesses the outcome of the social exchange, that individual may persist with the selected goal or revise it as the social interaction continues.

In his attribution theory, Weiner (1985) emphasizes that individuals are concerned with determining the perceived causes of behavior and events, including social interactions and academic achievement outcomes. According to Weiner's theory, there are three underlying dimensions of causes. The first is *locus*, in which the individual must decide whether a cause is internal (e.g., lack of social ability) or external (e.g., bad mood of the interaction partner). The second dimension is *stability*, which identifies a cause as constant or changing over time. The third dimension is *controllability*, or whether a cause is subject to volitional influence. The attributions a person makes can have a strong impact on factors such as behavioral choices, expectancy of success, and emotion. For example, an individual who is victimized by peers may attribute this experience to external, stable, and uncontrollable factors. In turn, the individual may decide to withdraw socially, expect future harassment, and feel hopeless.

Selman and colleagues (Selman, Beardslee, Schultz, Krupa, & Podorefsky, 1986) proposed the Interpersonal Negotiation Strategies (INS) model. According to this model, four information processing issues are central as individuals engage in social problem solving. The first process involves the definition of the problem. The individual must evaluate the specific problem in terms of the relationship (i.e., whether the problem is a mutual one or whether the focus is on one person). The second process focuses on the action to be taken (i.e., the strategy or strategies suggested to deal with the dilemma). The third process involves considering the consequences of the solution proposed. These include consequences to the protagonist, the significant other, and the relationship between the two people. The fourth process takes into account the complexity of feelings expressed. The person must consider the effect of the solution on the emotions of those involved. According to this model, the individual's use of strategies may vary depending on the context (e.g., status difference between interaction partners, type of relationship).

Bandura's (1977) self-efficacy theory proposes that individuals' level of confidence in their ability to successfully perform a certain behavior will impact whether that behavior will be initiated, how much effort will be exerted, and how long the behavior will be attempted in the face of challenge. According to Bandura, expectations of personal efficacy come from four principal sources of information, including performance accomplishments, vicarious experience, verbal persuasion, and emotional arousal. Bandura distinguishes self-efficacy perceptions from outcome expectations. Outcome expectations are defined as an individual's

estimate that a given behavior will result in a particular outcome. Outcome expectations and self-efficacy perceptions are distinct because an individual may believe that a certain behavior will lead to a specific consequence, but that person may not think that he or she could successfully carry out that particular behavior. For example, the individual may believe that using negotiation strategies may lead to the peaceful resolution of a conflict, but she may not think she is a very effective negotiator. Conversely, a person may believe that she could effectively carry out a behavior but may not expect that behavior to result in the desired outcome. Thus, both self-efficacy perceptions and outcome expectations impact individuals' behavioral choices.

All of these theoretical models highlight specific types of social-cognitive variables that may operate as individuals decide on behavioral responses in social situations. The models differ in the specific variables that are emphasized, but across these models certain social-cognitive processes are viewed as playing significant roles in predicting individuals' social behavior. These variables include attributions of hostile intent, attributions for social success or failure, social goals, strategy knowledge, self-efficacy perceptions, outcome expectations, and beliefs about the legitimacy of aggression. Each of these social-cognitive processes will be discussed below, with a focus on some of the most common ways these variables have been assessed in children, adolescents, and adults.

ASSESSMENT OF ATTRIBUTIONS OF INTENT

A variety of methods have been used to assess attributions of hostile intent (see Orobio de Castro, Veerman, Koops, Vosch, & Monshouwer, 2002, for a meta-analysis). Through audio, video, or picture presentation or through laboratory analog tasks participants are asked to respond to ambiguous provocation situations in which a provocateur causes some kind of harm for reasons that are unclear. The most frequently used technique involves audio presentation of hypothetical ambiguous provocation vignettes that are read by the experimenter in either an individual interview or a group administration context. In one of the first studies to examine the attribution of hostile intent, in an individual interview context Dodge (1980) presented aggressive and nonaggressive boys from grades two, four, and six with four stories involving ambiguous provocation (e.g., milk is spilled on the child and the provocateur's intent is unclear). In two of the stories the provocateur was an aggressive classmate (identified by name) and in two of the stories the provocateur was a nonaggressive classmate. The boys were then asked how the incident might have happened, with responses being probed in a nonleading manner until the child commented about the intentionality of the peer. Hudley and Graham (1993) also individually interviewed children, and following each vignette, participants were asked three questions to judge the peer's intent: whether the provocateur "meant to do that to you," whether he did it "on purpose," and whether it was "his fault that it happened." Participants responded on a 7-point scale ranging from "yes for sure" to "surely not," a response format that allows for more variability in attributions. Interviews with adolescents (e.g., Slaby & Guerra, 1988) and adults (e.g., The Social Scenarios Interview; Flory, Matthews, & Owens, 1998; Vitale, Newman, Serin, & Bolt, 2005) likewise involve the presentation of ambiguous provocations, followed by questions regarding the provocateur's intent.

Group assessments of attributions of hostile intent via audio presentation are used as well. In research with children, Erdley and Asher (1996) presented fourth- and fifth-grade students with 10 ambiguous provocation vignettes in which the provocateur was the same sex as the participant, and the child was instructed to imagine that he or she was the victim.

Children were asked whether the provocateur caused the harm "by accident" or "on purpose," and scores were based on the proportion of "on purpose" responses given. In work with adults, Homant and Kennedy (2003) used the Hostile Attribution Scale that includes 10 common frustrating situations (e.g., someone being late for a meeting). Following each scenario, two cognitive reactions were provided, reflecting hostile vs. benign intent. To assess the relation of attributions to aggressive driving behavior, Matthews and Norris (2002) presented adults with 12 scenarios involving driving situations that portrayed malign, ambiguous, or benign intent. Participants' attributions were assessed using the questions: (a) How certain are you that the driver's actions are intentional? and (b) How certain are you that the driver's actions are hostile? Responses were made on a 9-point rating scale, with 1 = *not at all sure* to 9 = *extremely sure*.

Some researchers have assessed the attribution of hostile intent using video presentation of stimuli in which they ask participants to imagine that they are the victims of the negative outcomes. Dodge, Murphy, and Buchsbaum (1984) produced a videotape that included 10 vignettes that depicted hostile, prosocial, accidental, merely present, or ambiguous intent. Children were asked to verbally identify the intent of the actor involved. Similarly, Dodge, Price, Bachorowski, and Newman (1990) presented video recorded stimuli of 16 problematic social events depicting hostile, prosocial, accidental, or ambiguous intent to male juvenile offenders. Participants were asked to select one of four attributional options: (a) to be mean, (b) it was an accident, (c) to be helpful, and (d) it is unclear why he did it. Lemerise, Gregory, and Frestrom (2005) showed children six videotaped ambiguous provocation vignettes featuring pairs of same-gender, same-race children. The gender and race of the stimulus children varied across the stories, as did the emotion displayed by the provocateur. Children were interviewed about the intent of the provocateur and were asked increasingly more direct probes until they made an attribution.

A few studies involving younger children have presented ambiguous provocations with the aid of pictures. Lavallee, Bierman, and Nix (2005) showed first-grade students eight drawings depicting failed attempts at peer entry or minor harm under conditions of ambiguous intent. Children were asked why they thought the children in the pictures had acted as they did. Coders rated the explanation given as hostile or nonhostile, with scores reflecting the percent of hostile attributions given across the vignettes. In work with maltreated 6-year-old children, Price and Glad (2003) presented ambiguous provocations with the aid of a storyboard. The child chose a laminated figure that looked most like him or her, and the interviewer portrayed the provocateur (either the mother, father, unfamiliar teacher, best friend, or unfamiliar peer). Children were asked to explain the reasons for the other person's actions and were questioned whether the person was "being mean," "not being mean," or whether it was "hard to tell." In this study, separate hostile attribution tendency scores were calculated for each relationship figure.

Finally, attributions of hostile intent have been assessed using laboratory analog tasks involving ambiguous provocation. For example, Hudley and Graham (1993) had pairs of boys participate in a map-reading task in which one boy was to give directions to his partner so that the partner could get to a certain destination, and both boys would win a prize. However, unknown to the boys was the fact that they were each looking at different maps, so it was impossible for correct directions to be given or for a prize to be won. After this task, the participant was asked to judge his peer's intent.

Although most assessments of attributions of hostile intent use situations depicting physical harm, more recently some studies have examined relational provocation, defined as acts focused on harming one's reputation or sense of belonging (e.g., the child overhears peers discussing a party to which the child has not been invited). Using group administration, Crick, Grotpeter, and Bigbee (2002) presented children with five relational and five overt

provocation situations, and participants evaluated the provocateur's intent (mean or not mean). Leff, Kupersmidt, and Power (2003) have also given relational provocation situations in a group context, and they varied the status of the provocateur (someone with a relationally aggressive reputation or someone without such a reputation). Children rated the intentionality of the provocateur on a 5-point scale. The Social Cognitive Assessment Profile (SCAP; Hughes, Cavell, & Meehan, 2004) is administered individually in an interview format and presents eight ambiguous provocation situations, four involving relational aggression and four involving overt aggression. Participants are asked to spontaneously generate an attribution for why the harm occurred. Interestingly, a cartoon-based attributional measure for urban girls has recently been developed by Leff et al. (2006). These researchers partnered with African-American inner-city third- and fourth-grade girls to create a measure that uses cartoons to illustrate physically and relationally provocative situations in a culturally sensitive way. This measure is individually administered, and participants are asked to select their attribution from among the intentional and unintentional possibilities provided.

ASSESSMENT OF ATTRIBUTIONS FOR SOCIAL SUCCESS AND FAILURE

To assess individuals' attributions for social success and failure, questionnaires, individual interviews, and laboratory analog tasks have been used. The Student Social Attribution Scale (Bain & Bell, 2004) is a 30-item questionnaire that assesses causal attributions for social success and failure in school-related situations. Children are presented with social situations, half that involve success and half that depict failure. Then, children are asked to rate on a Likert scale (1 = *seldom*, 2 = *sometimes*, 3 = *often*) how likely each of four causal statements (ability, effort, chance, and task difficulty) is for the situation. The Assessment for Social Failure measure (Guerra, Huesmann, & Zelli, 1990) presents adolescents with four social situations in which another person frustrates the participant. Participants are asked to state the one reason why the social failure would happen, and then they rate the cause on the dimensions of causality, stability, and controllability. The Attributional Style Assessment Test (Anderson, Horowitz, & French, 1983) has been used with college students and includes situations that involve interpersonal success, interpersonal failure, noninterpersonal success, and noninterpersonal failure. Following each situation, participants are asked to select an attribution for the situation from choices that reflect ability, effort, and strategy explanations. The Attributional Style for Heterosocial Situations questionnaire (Bruch & Pearl, 1995) is designed to sample heterosocial situations relevant to college students. The measure consists of eight situations, and participants are asked to imagine themselves in the situation and then to write down what the major cause would have been if the situation happened to them. Then, they rate the cause for each situational item on the dimensions of locus, stability, and controllability.

In an individual interview context, participants are typically presented with a set of social situations and are asked to provide an explanation for the outcome. For example, Earn and Sobol (1990) used 12 situations that varied in their outcome (success or failure) and the initiator of the contact (either the child or an agemate). Children respond to scenarios such as "You ask a child to go to the movies with you and he does. Why do you think this would happen?" Children's open-ended responses are then coded on the dimensions of locus (internal, mutual, or external), stability (stable or unstable) and controllability (controllable, mediate, or uncontrollable).

Finally, attributions have been measured in laboratory analog situations in response to actual social challenges. For example, Erdley, Cain, Loomis, Dumas-Hines, and Dweck (1997) invited children individually to try out for a pen pal club. A child's first attempt was rejected, but all children were accepted into the club after their second attempt. Children were then asked to make attributions for their initial social failure. Four attributions (i.e., ability, personality, effort, and incompatibility) were presented on a wheel divided into 32 sections, and children could assign each attribution some proportion of the 32 points. In another study, Pelham, Waschbusch, Hoza, Pillow, and Gnagy (2001) used a social interaction task in which a boy met a same-age, same-sex confederate and was instructed to try to get the other boy to like him and to talk the boy into coming to a summer program. Boys experienced a social success and a social failure, separated by several days. Immediately after each social interaction task, boys evaluated possible attributions (effort, ability, task difficulty, external, luck) for their success or failure, rating items on a 1–10 scale, 1 = *really true*.

ASSESSMENT OF SOCIAL GOALS

Individuals' social goals have been measured using a variety of methods, such as asking participants to spontaneously generate goals or to evaluate possible goals presented to them. Goals are assessed in response to hypothetical challenging social situations, real-life situations, or in more general social contexts. In work using hypothetical situations, Erdley and Asher (1996) interviewed children about their goals in response to each of three ambiguous provocation vignettes. Children were asked, "What would you be trying to do?" and eight goal alternatives were presented. Children rated the goals (e.g., get back at the provocateur, avoid the provocateur, maintain the relationship) on a 1 (*really disagree*) to 5 (*really agree*) scale. The Social Cognitive Assessment Profile (Hughes et al., 2004) likewise asks children to evaluate their goals in response to ambiguous provocation vignettes. Children are instructed to rate on a 4-point scale the importance of each of three social goals (i.e., dominance, revenge, and affiliation). Adolescents' goals in response to ambiguous provocations have been assessed in interviews using very similar methods (e.g., Lochman, Wayland, & White, 1993; Slaby & Guerra, 1988).

Researchers have also used a group administration format when assessing individuals' goals in response to hypothetical challenging social situations. Some studies ask children to select the one goal they would pursue. For example, in response to each of four conflict situations and four peer group entry situations, Crick and Dodge (1996) asked children to select either an instrumental goal or a relational goal. When completing the Children's Conflict Resolution Measure (Chung & Asher, 1996), children are instructed to choose a relationship, control, self-interest, or avoidance goal for each of 12 peer conflict situations. Other studies ask children to rate a variety of goals, rather than selecting just one primary goal. Rose and Asher (1999) have asked children "What would your goal be?" in response to situations depicting a conflict of interest with a friend. Children rated six goal options (e.g., relationship, instrumental, revenge) on a 1 (*really disagree*) to 5 (*really agree*) scale. Rose and Asher (2004) have employed the same rating scale approach to assessing goals using situations that involve help-giving (e.g., goals of prosocial support, not getting involved, and assigning responsibility) and help-seeking (e.g., goals of resolution, self-presentation, and privacy) tasks within a friendship.

Another technique employed to assess social goals involves having individuals evaluate their goals for situations they have directly experienced. Studies with children have had participants engage in a socially challenging task, after which their goals are evaluated.

Underwood, Schockner, and Hurley (2001) had children play (and mostly experience losing) a computer game with a peer who made provoking remarks during the session. Then, children were asked how much they were trying to achieve each of three social goals (i.e., prosocial, assertive, problem solving), which they rated on a 1 (*not at all*) to 5 (*a lot*) scale. Frey, Nolen, Edstrom, and Hirschstein (2005) had children participate in a structured conflict task, a prisoner's dilemma game. Depending on children's relative use of cooperative or exclusively self-interested strategies, four types of goals were defined (i.e., dominating, individualistic, egalitarian, and altruistic). Studies with adults typically have participants generate social situations they have experienced and then rate their goals. For example, Ohbuchi and Tedeschi (1997) asked college students to describe an experience of conflict and then rate how strongly they wanted to achieve particular outcomes (e.g., relationship, power-hostility, justice) on a 7-point scale. Similarly, Mikulincer (1998) had college students generate events that involved trust validation or trust violation in their close relationships and then rate their social goals (i.e., intimacy, security, control) on a 6-point scale.

Some researchers measure individuals' social goals in more global contexts, employing a group administration format. Salmivalli, Ojanen, Haanpaa, and Peets (2005) assessed children's goals using the Interpersonal Goals Inventory for Children, a self-report questionnaire consisting of 33 items representing eight goal scales. This measure is adapted from a questionnaire used with adult samples (The Circumplex Scales of Interpersonal Values; Locke, 2000). The goal scales represent different combinations of agentic (dominance, power, status) and communal (friendliness, warmth, love) goals. Individuals rate the importance of these outcomes when they are with peers on a 0 (*not important to me at all*) to 3 (*very important*) scale. To assess the social goals of adolescents, Wentzel (1994) has had students rate on a 6-point scale how often they try to achieve various types of prosocial and social responsibility goals in school. Jarvinen and Nicholls (1996) have asked adolescents to rate on a 5-point scale how much they like to achieve certain goals when they are with friends. The six goal scales (i.e., dominance, intimacy, nurturance, leadership, popularity, and avoidance) each have approximately five items. Finally, with adult samples, Dryer and Horowitz (1997) have used the Interpersonal Goals Inventory. Respondents rate the importance of 51 goal items on a 5-point scale, and goals are determined based on the dimensions of dominance and affiliation.

ASSESSMENT OF SOCIAL STRATEGIES

The assessment of individuals' social strategy repertoires has focused on examining both the quantity and quality of solutions, typically in response to challenging social situations. In some cases, participants are asked to generate solutions spontaneously, and in other cases solutions are presented for participants to evaluate. One measure that has been used extensively in the assessment of social strategy knowledge is the Preschool Interpersonal Problem Solving Test (PIPS; Shure & Spivack, 1974). In this assessment, which has been validated with children aged 4–6 years, participants are presented with two types of interpersonal problems. In one scenario, participants are asked about the ways in which a child might obtain a toy that another child has. In the second scenario, participants are asked about ways to avert their mother's anger caused by the child damaging a valuable object. Each theme (e.g., trying to get a toy) is presented via a variety of pictures to elicit new responses (with prompting from the interviewer) and to maintain the participant's interest. A child's PIPS score is based on the total number of different, relevant solutions given to the two problems. The ability to

generate a greater number of strategies, regardless of quality, was viewed as more socially competent by Shure and Spivack.

More recent approaches to the assessment of social strategy repertoires continue to recognize that having the knowledge and flexibility to produce a high quantity of solutions is important. However, current assessments also emphasize that the ability to generate high-quality, prosocial strategies vs. low-quality, aggressive or passive strategies is especially crucial to socially competent behavior. The Social Problem Solving Scale (Dodge, Bates, & Pettit, 1990) has been used with children in the elementary school years. Participants are presented with eight drawings, four that depict a child who would like to join other children who are playing and four that show a child who is being teased or frustrated by another child. Participants are asked to generate three possible strategies for each situation. These strategies are coded into one of six categories: aggressive, competent, authority-punish, authority-intervene, passive/inept, or irrelevant/other. The percent of responses in each category is then calculated. The Knowledge of Interpersonal Problem Solving Strategies Assessment (KISA; Asarnow & Callan, 1985) has been used with children in the late elementary school years. In an interview context, participants are presented with four situations: physical aggression, prosocial, opportunity for prosocial behavior, and friendship. They are asked what the child could do to solve the problem and are then given a second probe. Responses are coded into one of seven categories: physical aggression, tattle, ignore, assertion, positive, mature, or intense aggression. The number of separate solutions generated is also determined. In addition, after producing their own responses, participants are presented with six potential strategies and are asked to rate on a 5-point scale how much they would like to play with someone who did each behavior. Another interview approach, used primarily with preschool-aged children, involves an enactive assessment in which situations are presented via the use of puppets (e.g., Mize & Ladd, 1988). Children use a puppet themselves within the situation to suggest or enact as many strategies as possible. The number of strategies is determined, and responses are coded for content and effectiveness.

In work with adolescents, Kuperminc and Allen (2001) used nine hypothetical social dilemmas involving conflicts with peers, parents, and other adults. Adolescents reported their most likely responses that were then coded for the overall effectiveness and for the level of sophistication of the strategies. Selman et al. (1986) have used the Interpersonal Negotiation Strategy (INS) interview with adolescents. Participants are presented with eight dilemmas that involve an interpersonal disequilibrium between a protagonist and a significant other. They are asked the best way for the protagonist to deal with the significant other in the situation. Strategies are coded for quality, based on the level of collaboration reflected in the responses.

Social strategies have also been assessed in a group setting using questionnaires. In the Children's Conflict Resolution Measure (Chung & Asher, 1996), children are instructed to choose a prosocial, hostile, assertive, passive, or request for adult help strategy in response to each of 12 peer conflict situations. Erdley and Asher (1996) assessed children's strategies in response to ambiguous provocation situations. Following each of 10 situations, children are asked to rate on a 3-point scale (*no*, *maybe*, *yes*) if they would engage in each of six behaviors (e.g., physical aggression, passive reaction, problem-solving response). Then, they are instructed to circle the one behavior they think they would be most likely to engage in following the provocation. Children have also been asked to rate their strategies in response to various conflicts of interest with a friend (Rose & Asher, 1999) and in response to help-giving and help-seeking tasks within a friendship (Rose & Asher, 2004). Approximately six strategies are provided for each situation, and strategies are rated on a 1 (*definitely would not do*) to 5 (*definitely would do*) scale. To assess adolescents' problem-solving strategies, Keltikangas-Jarvinen (2002) presented participants with two interpersonal conflict situations. Following

each situation, 28 possible behavioral alternatives from the three domains of aggressive, prosocial, and withdrawn behavior are presented. Adolescents rate these strategies on a 1 (*I would do just that*) to 5 (*I would never do that*) scale.

An assessment of social problem-solving behaviors for adults was designed by Rusbult, Johnson, and Morrow (1986). This 28-item questionnaire measures the individual's perceptions of his or her own problem-solving behaviors. Four types of responses are assessed, using seven items for each type. These response types include voice (e.g., discussing the problem), exit (e.g., threatening to end the relationship), loyalty (e.g., waiting and hoping things will improve), and neglect (e.g., ignoring the problem). Each item is rated on a 1 (*never do this*) to 9 (*always do this*) scale.

ASSESSMENT OF SELF-EFFICACY PERCEPTIONS

Individuals' evaluations of their self-efficacy perceptions have been measured either in their responses to specific, challenging situations or in their more global assessments of their social abilities. Participants may be asked to rate how easy or hard it would be for them to enact each strategy following a social situation. These assessments are conducted in either an individual interview context (e.g., Erdley & Asher, 1996) or a group administration context (Crick & Dodge, 1996; Erdley, 1996). Perry, Perry, and Rasmussen (1986) developed a self-efficacy questionnaire that investigates several types of social contexts and asks children to rate on a 4-point scale how easy or hard it would be for them to deal with these situations (self-efficacy for aggression, inhibition of aggression, verbal persuasion skills, and prosocial behavior). To assess self-efficacy perceptions in adolescents, Kuperminc and Allen (2001) presented nine hypothetical conflict situations, each paired with a competent response that was described as "another teenager's response." Participants were then asked, "Do you think you could [perform the specified competent behavior] if you tried to?" Adolescents responded on a 1 (*definitely no*) to 10 (*definitely yes*) scale. In this same study, Kuperminc and Allen also asked adolescents to generate actual interpersonal conflicts. Teens were then asked three questions about their effectiveness in resolving these conflicts so that each would be unlikely to recur [e.g., How well they felt they had handled the situation, rated on a 1 (*worst way possible*) to 10 (*best way possible*) scale]. Measures for adults have focused on participants' assessments of their ability to carry out certain behaviors in the context of becoming acquainted with a stranger (Doerfler & Aron, 1995) or to perform various acts of communication with different types of interaction partners (e.g., The Glasgow Social Self-Efficacy Scale; Payne & Jahoda, 2004).

Several measures have been constructed to assess social self-efficacy in more general contexts. The Perceived Competence Scale for Children (Harter, 1982) investigates a variety of domains of self-esteem (e.g., social, scholastic, athletic). Children are presented with contrasting statements (e.g., Some kids find it hard to make friends BUT Other kids find it's pretty easy to make friends). Children select which statement is truer for them, and then they further rate the selected statement as either "sort of true for me" or "really true for me." Responses are scored on a 4-point scale. The Adolescent Self-Perception Profile (Harter, 1988) is structured in a similar way and includes various subscales assessing competence (e.g., social acceptance, close friendship, romantic appeal). The Pictorial Scale of Perceived Competence and Social Acceptance for Young Children (Harter & Pike, 1984) is designed for use with children from preschool age through third grade and examines domains such as peer acceptance and maternal acceptance. This measure is administered during an interview in which the child is presented with two pictures, one depicting a child performing

competently and one showing a child having difficulty. The interviewer then asks which child the participant is more like. Next, the interviewer asks whether the participant is a little bit or a lot like the child in the selected picture. The Academic and Social Self-Efficacy Scale (Gresham, Evans, & Elliott, 1988) measures children's perceptions of effectiveness in different types of social situations (e.g., group entry, conflict resolution). It is available in a self-report version, as well as in parent and teacher report versions.

ASSESSMENT OF OUTCOME EXPECTATIONS

The approach that has typically been used to assess outcome expectations involves presenting certain social situations (e.g., a child deciding to cut in line) and then asking participants to report what the outcome might be if particular behavior strategies (e.g., physical aggression, compromise) are enacted. This method has been used both in individual interviews during which participants generate outcome expectations that are later coded (e.g., Crick & Ladd, 1990, Study 1) and in group administration questionnaires in which participants rate the likelihood that specific positive or negative outcomes would result (e.g., Crick & Dodge, 1996; Crick & Ladd, 1990, Study 2). The Social Cognitive Assessment Profile (SCAP; Hughes et al., 2004) measures outcome expectations using an individual interview format. Participants are presented with eight hypothetical ambiguous provocation vignettes and are asked to evaluate consequences (i.e., peer approval, positive tangible outcome, peer retaliation) of using aggressive and prosocial responses to each situation.

The Perceived Consequences Questionnaire (Perry et al., 1986) is another instrument designed to measure outcome expectations. The questionnaire consists of 48 items, each of which requires children to imagine themselves behaving in a certain way toward a specified classmate (e.g., yelling at someone who is teasing you). Children are asked to rate their level of confidence that a specific consequence would occur (1 = *very sure it would not*, 4 = *very sure it would*). Thirty-six items assess children's anticipated consequences for aggressive behavior (i.e., tangible rewards, adult approval, peer approval, reduction of aversive treatment, victim suffering, and self-reward). The remaining 12 items assess children's expected outcomes for prosocial behavior.

The Interpersonal Negotiation Strategy (INS) interview (Selman et al., 1986) has been used to assess outcome expectations in adolescents. In response to social dilemmas, participants are asked what consequences they believe will be associated with the use of specific social strategies. Responses are coded for quality, based on the level of concern shown for the relationship (ranging from no anticipation of relationship consequences expressed to self-protective justification provided to concern for immediate vs. long-term effects on the relationship).

It does not appear that research with adults approaches the assessment of social outcome expectations using the types of interview and questionnaire methods employed with children and adolescents. Rather, most typically, participants' expectancies (e.g., regarding the attractiveness, competitiveness, or intelligence of the interaction partner) are manipulated in experimental settings, and their resulting social behavior is observed (see Olson, Roese, & Zanna, 1996, for an extensive review).

ASSESSMENT OF LEGITIMACY OF AGGRESSION BELIEFS

Several different questionnaires have been developed to measure individuals' beliefs about the acceptability of using aggressive responses. The Normative Beliefs about

Aggression Scale (NOBAGS; Huesmann & Guerra, 1997) is a 20-item scale designed to assess beliefs about the legitimacy of aggressive behavior. The measure has been used with both children and adolescents and consists of two subscales. The Retaliation Approval subscale includes 12 items measuring beliefs about the acceptability of retaliating to aggressive provocation in aggressive ways. A sample item is, "Suppose a boy hits another boy, John. Do you think it's wrong for John to hit him back?" The General Approval subscale includes eight items assessing beliefs about the legitimacy of aggression in general (e.g., "In general, it is wrong to hit other people"). Responses are made on a 4-point scale (1 = *it's really wrong* to 4 = *it's perfectly okay*). The NOBAGS has been modified to examine beliefs about the legitimacy of physical, verbal, and indirect aggression in response to specific situations involving physical, verbal, and indirect provocation (Musher-Eizenman et al., 2004). The NOBAGS also has been shortened for use with preschoolers in an individual interview (Giles & Heyman, 2003), with the response choice limited to two options, endorsement of aggression or rejection of aggression.

Slaby and Guerra (1988) developed a questionnaire for adolescents that presents 18 beliefs supporting aggression. The types of beliefs measured include legitimacy of aggression (e.g., "It's OK to hit someone if you just go crazy with anger"), aggression increases self-esteem, aggression helps to avoid a negative image, victims deserve aggression, and victims do not suffer. Respondents answer "true" or "false" to each item. Erdley and Asher (1998) created a legitimacy of aggression questionnaire that is a modification of the Slaby and Guerra (1988) legitimacy of aggression subscale. This measure consists of 16 items, eight that focus on physical aggression and eight that focus on verbal aggression. Items are appropriate for children, and responses are made on a 1 (*really disagree*) to 5 (*really agree*) scale.

Adults' beliefs about the legitimacy of aggression have been assessed using the Moral Approval of Aggression Inventory (MAAI; Lagerspetz & Bjorkqvist, 1985; see also Lagerspetz, Bjorkqvist, Bjorkqvist, & Lundman, 1988). There is a short version of this measure that is intended to function as a general test of aggressive attitudes. The long version of the MAAI allows for the investigation of cultural differences in the approval of different types of aggression. This long version consists of 11 situations in which aggression may be used (e.g., in war, in self-defense, in child rearing), and these situations are paired with each of eight acts of aggression (e.g., shout, threaten, kill). Respondents are asked to rate the extent to which they consider aggression justified under each set of circumstances, with ratings made on a 4-point scale ranging from 0 (*never justified*) to 3 (*usually justified*).

CONCLUDING COMMENTS

Various social-cognitive theories propose the ways in which specific thought processes may relate to the social behaviors in which people choose to engage. Studies have shown that individual variables (e.g., attributions of hostile intent, social goals) are predictive of behavior. However, it is also clear that the assessment of multiple social-cognitive variables provides a stronger prediction of behavior (Crick & Dodge, 1994). Social-cognitive variables can be measured to identify individuals who may be more likely to engage in maladaptive behavior. Although the focus of social skills intervention approaches has typically been on changing individuals' behaviors, if the thought patterns underlying socially incompetent behavioral choices are not modified as well, it is likely that the person will soon lapse back into those same maladaptive behaviors. Thus, it is important to target social-cognitive variables in social skills interventions and to monitor these variables to assess for possible improvement.

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Chapter 3
A Conceptual Basis in Social Learning Theory

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A CONCEPTUAL BASIS IN SOCIAL LEARNING THEORY

Though there is debate as to whether they are necessary or sufficient determinants, social skills are presumed to form the foundation for competence in most major models (e.g., Cavell, 1990; Crick & Dodge, 1994; Dubois & Felner, 1996; Rose-Krasnor, 1997). Once focusing on more molecular and observable units of behavior (McFall, 1982), more current conceptualizations of social skills incorporate a full range of cognitive, emotional, and behavioral skills and abilities, as well as motivational and expectancy sets (e.g., Dubois & Felner, 1996). Behind this conceptual shift was the rising influence of the social learning perspectives. The integration of these perspectives into mainstream behavioral psychology formed the basis for current cognitive-behavioral approaches and, as such, has important conceptual and applied implications for social skills assessment and intervention.

For our purposes, social learning theory is defined broadly. It incorporates a number of approaches that have some common core elements. Aptly described by Maisto, Carey, and Bradizza (1999), these approaches bring together principles of learning and those of cognitive psychology. Like the operant theories upon which they were based, social

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learning approaches share the view that behavior is learned and influenced by environmental antecedents and consequences. Departing from operant theories, cognitive processes are assumed to play a mediational role that is central to learning. Indeed, how a person cognitively processes environmental information may be just as or even more important than the environment per se. As such, learning is viewed as a complex process involving interactions among cognitive, behavioral, and environmental variables. Learning can be direct, as in operant conditioning, or indirect, as in modeling and imitation. In concert with its operant predecessor, social learning theory places a heavy emphasis on the social context but adds another layer by introducing the notion of reciprocal determinism. That is, the social context both influences and is influenced by cognitions and behavior.

Given the foundational nature of social learning theory (SLT), we decided to place this chapter early in the volume to serve as a primer. The chapter begins with an overview of relevant history that is followed by coverage of the core elements of SLT, including the role of learning and the environment, cognitive mediation, and reciprocal determinism, with an emphasis on how each element influences social skill acquisition and maintenance. As a learning theory, SLT principles also inform intervention. Before concluding the chapter, we offer a brief review of SLT intervention procedures, including reinforcement, feedback, behavioral rehearsal, modeling, coaching, as well as problem-solving and self-instruction training.

HISTORICAL OVERVIEW

Although Bandura is most often credited with the founding of SLT, there are a number of influential researchers deserving of such recognition. Readers interested in more thorough historical coverage are pointed to an excellent chapter by Grusec (1992). She describes SLT as emerging from the initial efforts of a group of researchers adopting a Hullian perspective to better understand aggressive behavior. Emphasizing the importance of drives and motivation in the learning process, the Hullian perspective arose out of a movement beginning in the mid-1930s to "marry psychoanalytic and stimulus-response (S-R) theories" (p. 476). As suggested by Grusec (1992), however, the marriage actually consisted of little more than a reframing of the then dominant Freudian approach in S-R terms. For example, in the reformulated view, aggression was attributed to a drive brought on by frustration, although this drive was not necessarily instinctual, and the reactions to it were amenable to learning.

With the door open to learning processes, researchers in this movement became increasingly interested in the socialization of aggression. In *Social Learning and Imitation*, a book many consider to be the first comprehensive account of SLT, Miller and Dollard (1941) emphasized the role of imitation in this process and provided some preliminary empirical support from experiments with children. Imitation was described as a special instance of instrumental conditioning in which social cues served as discriminative stimuli, and imitated responses were rewarded or not based upon the degree to which they matched that of the model. According to Bandura and Walters (1963), Miller and Dollard viewed imitation to be a direct learning experience requiring both the reproduction of the model's response during acquisition and the reinforcement of that response. Also interested in the socialization of aggression, Sears focused much of his efforts on understanding the internalization of culture's values, attitudes, and behavior (Grusec, 1992). Acknowledging not only the impact of the external world upon the individual but also the impact of the individual upon the external world, Sears (1951) was one of the first to argue that a bidirectional approach to behavior was

needed to more fully understand social relationships, thus setting the stage for the reciprocal determinism concept.

Displeased with certain aspects of the SLT movement, Bandura began to chart a different course that initially embraced the operant conditioning principles of Skinner but ended up positing a central role for cognitive mediation. In her analysis, Grusec (1992) points to some of the key developments in Bandura's theorizing across the publication of his first two books. Early on, he closely adhered to the Hullian perspective in trying to understand aggressive behavior. He was well-versed in this approach, having been influenced by Spence, a close collaborator of Hull's in graduate school, and later by Sears, a colleague at Stanford University. In their first book, *Adolescent Aggression*, Bandura and Walters (1959) theorized that highly aggressive boys suffered from a dependency anxiety that arose from rejection and the punishment of dependent responses. Their aggression was largely attributable to the frustration created by neglect and rejection. Borrowing from the work of Sears, this theory also included the notion of identification with parents and its role in the development of internalized controls over behavior (Grusec, 1992).

In their second book, Bandura and Walters (1963) adopted a "socio-behavioristic" approach that departed from the then dominant Hullian perspective in its rejection of psychoanalytic ideas and recasting of operant learning principles to better account for the social influences in learning (Grusec, 1992). For example, Bandura and Walters (1963) critiqued the prevailing social learning approach to the phenomenon of displacement. Displacement had been used to describe instances in which an individual responds to frustration by aggressing against others in lieu of the "original frustrators" (Bandura & Walters, 1963, p. 18). Applying Miller's (1948) conflict model, though punishment could inhibit an aggressive response through the conditioning of an inhibiting fear response, the aggressive response would likely be diverted to other persons or objects. The likelihood of being targeted by the diverted aggression was viewed as a function of the degree of similarity between the potential target to the socialization agents and strength of the original aggressive and fear responses (cf. Bandura & Walters, 1963). Bandura and Walters (1963) felt this model was limited because it ignored important social influences. That is, it failed to take into account the fact that the original agents of frustration and punishment continue to exert influences on displaced responses through instruction, example, and control of contingencies. Moreover, such responses are further modified by the responses of other socializing agents and the targets of the displaced aggression. In an illustrative empirical example, Bandura and Walters (1963) noted the tendency for highly aggressive boys to have parents who punish aggression in the home but reinforce such behavior outside of the home. Hence, the apparent "displaced" aggression may actually be an outcome of discrimination training.

Nowhere was the failure to adequately account for social influences more evident for these authors than in the prevailing learning explanation of the acquisition of novel responses. From an operant perspective, novel responses were acquired through shaping or successive approximations. According to Skinner (1953), shaping was a gradual learning process in which elements of a given response resembling the desired final form were reinforced and those with little or no similarity were not. Making reinforcement contingent on increasingly closer approximations to the final form led to novel responses and response patterns. For Bandura and Walters (1963), this trial and error learning process was tedious and could not explain instances in which a response suddenly emerged with no reliable eliciting stimuli. They reasoned that only imitation could explain such instances and went on to assert that it was a much more efficient learning mechanism even in instances when shaping was possible.

Imitation as a social learning process was nothing new. As discussed earlier, Miller and Dollard (1941) viewed imitation as a special case of instrumental conditioning that required a response and reinforcement during acquisition. But, according to Bandura and

Walters (1963), one could learn by observing the behavior of others, even when the observer did not reproduce the model's responses during conditioning and therefore received no reinforcement. Vicarious reinforcement was also possible. A behavior could be modified because of the observed consequences to a model. Again emphasizing social influences, they also noted that imitative behavior itself was often rewarded both by the model and the fact that it is socially effective. Thus, most children developed a generalized habit of matching responses of successful models. Returning to the example cited earlier, the tendency for highly aggressive boys to imitate the hostile attitudes of their parents often outweighed the suppressive influence of direct parental punishment (Bandura & Walters, 1959).

Across the next two decades, Bandura continued to build and expand upon this theory of observational learning (Bandura, 1969, 1977, 1986). His 1969 book, *Principles of Behavior Modification*, was particularly influential because it offered a vision of human nature that was very different from the then dominant psychoanalytic and learning approaches (Maisto et al., 1999). Instead of being driven by internal or external forces, human behavior was determined by an interaction of external stimulus events, internal processing systems and regulatory codes, and reinforcing response-feedback systems (Maisto et al., 1999). According to Maisto and colleagues, this work included four major principles or constructs that continue to define modern SLT approaches: (1) differential reinforcement explained situational variability in behavior, (2) vicarious learning explained the acquisition of new behaviors through the observation of others or symbolic communication, (3) cognitive processes played a mediational role between environment and behavior, and (4) reciprocal determinism described the interaction between environment and behavior, a notion later expanded to also include person factors.

By 1977, Bandura emphasized person factors, particularly cognitive processes, more heavily than the external environment. Of great interest to Bandura was how we come to transfer control of our behavior from external to internal sources. He theorized that this was accomplished through the acquisition of self-regulatory functions. Individuals form mental representations of their experiences, and these representations play a role in determining later behavior. Along with this comes the capability of arranging incentives and generating consequences for actions (Maisto et al., 1999). For instance, a behavior that meets one's internal standards may be judged more positively than one that falls short (Bandura, 1977). As such, individuals are not passive responders to their experience and the environment. They play an active role in determining their own behavior. Critical to this self-regulation process is self-efficacy or developed beliefs regarding one's ability to enact a given behavior and achieve desired outcomes. These beliefs are domain specific, develop through history of achievement within that domain, and help guide behavior.

Other prominent figures in the development of SLT approaches include Rotter, Mischel, Goldfried, and D'Zurilla. In quite a departure from existing learning theories emphasizing only observable behavior, Rotter (1954) posited an important role for cognitive expectancies. The likelihood that an individual would engage in a behavior was seen as a function of the probability that it would be reinforced and the subjective valuing of the reinforcer. Mischel (1969, 1973) reconceptualized the personality construct from a cognitive social learning perspective. He questioned the utility of the traditional trait approach to personality and offered evidence suggesting a lack of continuity in behavior across situations. His reconceptualization also emphasized a number of the already discussed cognitive person variables, such as the subjective values placed on perceived outcomes, interpretation and encoding of information, and self-regulatory systems. Interactions between such person variables and psychological situations were stressed. In his own words, "the person continuously selects, changes, and generates conditions just as much as he is affected by them" (Mischel, 1973, p. 278). Also emphasizing cognitive person variables, Goldfried and D'Zurilla (1969)

proposed a model of social competence that delineated a five-step problem-solving sequence and served as a basis for a number of future social information processing models and interventions (e.g., Dodge, 1986; D'Zurilla & Goldfried, 1971).

CORE CONCEPTS AND SOCIAL SKILL IMPLICATIONS

Current SLT approaches evolved from seemingly disparate theoretical perspectives and the sometimes parallel efforts of theorists trying to answer similar questions. The preceding historical overview highlighted the contributions of, and differences between, particular researchers to trace the development of many of the core concepts. In this section, we instead focus on the common elements binding the various approaches. Core concepts, including the role of learning and the environment, cognitive mediation, and reciprocal determinism, are described with an emphasis on their social skill implications.

Role of Learning and the Environment

From an SLT perspective, social skills are learned behaviors. As suggested in our historical overview, a diverse range of learning mechanisms can be employed to describe the possible pathways to skill acquisition and maintenance. Kelly (1982) outlines several in his SLT model: direct positive reinforcement of the skills, vicarious or observational learning experiences, receiving interpersonal feedback, and the development of cognitive expectancies concerning interpersonal situations. Interestingly, these proposed mechanisms mirror the evolution of SLT in that they begin with more fundamental operant conditioning principles and layer on those derived from the observational learning and cognitive approaches.

Operant conditioning emphasizes the role of consequences in the learning process and requires direct contact with the environment. Like any other behavior, social skills are developed and maintained through a series of interactions between an individual and the environment. Across such interactions, those social skills that elicit positive consequences are more likely to be repeated and become part of the individual's interpersonal repertoire. In contrast, those eliciting negative consequences are less likely to be repeated. Reinforcing consequences are defined functionally in terms of their ability to increase the likelihood of future responding. The extent to which the social outcomes, such as conversations, dates, and positive comments from others associated with skill enactment serve as reinforcers is likely to vary across individuals (Kelly, 1982). Another factor impacting skill acquisition and maintenance is the consistency of reinforcement. Ideally, skill acquisition is most efficient when each instance of the new behavior is reinforced on a consistent basis. Most social skills, however, are not consistently reinforced, particularly in the early learning stages when the individual has not yet fully mastered the skill and cannot use it effectively (Kelly, 1982). If used repeatedly without resulting in positive consequences, the skill is likely to extinguish.

Situational variability in behavior is another important notion in the learning approach to social skills. In his critique of trait-like approaches to personality, Mischel (1969) emphasized the importance of situational specificity of behavior and argued that behavior in a given situation was determined more by situation than person factors. As such, an individual's social behavior is likely to vary across situations. The likelihood of a given social skill being used is a function of the perceived similarity between the current situation and the situation in which the skill was initially reinforced. Similarly, when presented with novel situations, an

individual will respond based on the degree to which the current situational cues match those in place when a similar response was effective in the past. This trial skill usage can lead to one of two possible outcomes (Kelly, 1982). If the skill is effective in the new situation, the person's skill repertoire is expanded via a form of response generalization. Alternatively, the skill may be ineffective because the person misread the situational cues and operating contingencies or the new situation demanded social skills that were not in the person's repertoire.

Another contributor to the situational variability of behavior is differential reinforcement. The consequences for skill enactment may vary as a function of the stimulus conditions present in a given situation. Because there is variability in the consistency of reinforcement across settings for the same skill, individuals must learn to discriminate between situations and learn when it is appropriate to engage in a particular behavior. For example, although laughter may be an appropriate social response across a variety of contexts (e.g., when a friend tells you a joke, when others are laughing at something), there are particular situations when it is considered insensitive or rude (e.g., when a friend discloses something sensitive, when a situation is rather serious). Anticipated consequences play an important role in determining when specific skills may be effective in specific situations, and such determinations often involve the balancing of the potential benefits and costs of enactment (Bandura, 1973, 1977).

Perhaps the most influential contribution of Bandura to modern SLT approaches was the notion that skill acquisition did not require direct contact with the environment. Individuals also learn through the observation of others. Learning in such situations is facilitated not only by the modeling of a social skill but also by the observation of the resulting consequences of skill enactment. Vicarious learning does not necessarily require direct exposure to a model but can also occur through communication by more symbolic means such as spoken or written language (Bandura, 1969). Exposure to a model enacting a social skill can have one of three effects on the observer. The observer can learn how to enact the skill through modeling. There can also be a disinhibitory effect, in which the observer enacts the skill more frequently as a function of exposure to the model. Conversely, there can be an inhibitory effect, in which the observer engages in the skill less frequently as a function of exposure. Bandura and his colleagues have examined a wide range of factors that appear to facilitate the observational learning process (e.g., Bandura & Kupers, 1964; Bandura, Ross, & Ross, 1963). As summarized by Kelly (1982), these include the observer's perceived similarity to the model (e.g., age, sex), likeability of the model, consequences to the model for skill enactment, and the observer's own learning history for skill enactment.

Once acquired, social skills are refined and sharpened through practice and the receipt of feedback from others and the environment. When a skill results in positive outcomes, it is both more likely to recur in the future and change in a manner that makes it even more effective over time (Kelly, 1982). Like any other newly learned skill, initial attempts may prove to be somewhat awkward and uncomfortable but subsequently improve with practice and become more fluid. A key component in the skill refinement process is the feedback one receives from others in the form of information communicating their response to the behavior. For example, during a conversation, the discussion of certain topics may be reinforced through increased eye contact, increased attentiveness, postural changes, and verbal comments expressing interest, whereas the discussion of other topics may be punished through reduced eye contact, yawning, or movement away from the speaker (Kelly, 1982). Of course, such feedback can also be more direct and informational. In the above example, for instance, the speaker might be told: "It makes me feel very uncomfortable when you bring up that topic" or "I do not want to hurt your feelings, but I just have very little interest in talking about sports all the time." The potential specificity of such feedback can be immensely

facilitative to the learning process. Consider an instance in which an individual is attempting to be assertive with a partner but is told that because of the tone of voice and anger conveyed by facial expressions the attempt came off as being aggressive and was therefore ineffective. Unfortunately, however, in the majority of more routine social interactions, feedback is more ambiguous or absent and the individual is left with the inferred reactions of others to guide future behavior (Kelly, 1982).

As initially proposed by Rotter (1954), cognitive expectancies also play a crucial role in skill learning. One such expectancy is the perceived value of reinforcers. To predict whether an individual will use a particular skill, it is important to know the degree to which he or she values the likely reinforcer. Skill use is also influenced by the individual's expectancies regarding outcomes and contingencies. That is, an individual will be more likely to use a skill if he or she believes that it will be effective in the given situation. Such outcome expectancies, positive or negative, are learned through direct experience, modeling, or feedback (Kelly, 1982). Taken together, an individual is most likely to engage in a particular social skill when he or she perceives a high likelihood that it would be reinforced and values the potential reinforcer. In a nice illustration of the role of expectancies, Rabiner and Coie (1989) induced a positive expectancy in rejected children just prior to their joining a group of unfamiliar peers and assessed whether it influenced their group entry behavior and the impressions formed by the new peers. Rejected children who received the induction were liked more by the new peers than were controls, although a detectable improvement in behavior was observed for girls only. Thus, as suggested by Rotter, rejected children made better impressions on others when they expected interpersonal success.

Cognitive Mediation

Current SLT approaches do more than acknowledge a role for cognitions in the learning process. Instead, they view cognitions as mediating environmental events and behavior. Intermediary cognitive processes help to determine which external events are registered, how they will be perceived, whether they exert any lasting effects, and how the communicated information will be organized for future use (Bandura, 1978). In more current information-processing terms, environmental events are encoded, organized, and processed, before more information is retrieved, further processed, and followed by an overt behavioral response. In this way, people are seen as much more than passive responders to their environments. In Bandura's own words, the "capacity of humans to use symbols enables them to engage in reflective thought, to create, and to plan foresightful courses of action in thought rather than having to perform possible options and suffer the consequences of thoughtless action" (Bandura, 1978, p. 345). People play a role in constructing their own social environments and thereby exert a degree of control over their own behavior. Referred to as self-regulatory functions, Bandura noted that individuals can alter their immediate environments, create cognitive self-inducements, and generate consequences for their own behavior.

An important example of this cognitive mediation is found in the notion of self- efficacy. Self-efficacy refers to an individual's belief that he or she can enact a given behavior at a level required to result in the desired outcomes (Bandura, 1977). It is domain specific and is thought to have cyclical effects. For instance, individuals high in perceived self-efficacy are more likely to set higher goals for themselves, be firm in their commitment to achieving them, and ascribe failures to insufficient effort (Bandura, 1993). In contrast, those low in perceived self-efficacy have lower expectations, visualize failure, think about the many things

that can go wrong, and attribute failures to low ability. An implication for those low in self-efficacy is that the preoccupation with failure and resulting increase in emotional arousal only serve to further impede skill performance. For example, an individual with low self-efficacy beliefs is asked to give an oral presentation in front of a class and becomes overwhelmed with anxiety and thoughts of failure. As a result, the presentation suffers, the compromised performance is attributed to low ability, and the low self-efficacy beliefs are reconfirmed. A related implication for understanding social skills is the so-called competence versus performance distinction. Even with the required knowledge and skills, an individual may not respond effectively in a social situation because of beliefs that he or she has low self-efficacy. In order to really learn a social skill, one needs to acquire the requisite knowledge and skill, as well as the positive self-efficacy beliefs associated with its execution. More recent research, however, suggests that in addition to having positive self-efficacy beliefs, one must be focused more on goals that emphasize learning opportunities over performance evaluation and view his or her skills as malleable versus fixed (Dweck, 1999).

Reciprocal Determinism

Fundamental to current SLT approaches is the idea that behavior is controlled by the environment but also exerts control by altering the environment. Building on this simpler notion of reciprocal determinism he introduced in 1969, Bandura later included the "person" factor in reaction to what he saw as limitations in the ongoing debate over whether behavior was due more to person or situational factors (Bandura, 1978). The compromise, and most popular, solution was the adoption of the interactionism stance in which behavior was seen as a function of both person and situation factors (e.g., Bowers, 1973; Endler & Magnussen, 1975). Although this compromise position proposed roles for both person and environmental variables, it was still seen as limited by Bandura because of its clinging to what he perceived as unidirectional paths of influence. As an alternative, he proposed that rather than functioning as independent determinants, person and environmental factors determine one another and that persons could not be considered to be causes independent of their behavior (Bandura, 1978). Through their behavior, people help to produce the environmental conditions that then affect their subsequent behavior in a reciprocal process. The experiences generated by such behavior, in turn, partly determine what people think, expect, and do, which then affects their future responding (Bandura, 1978).

In his concept of triadic reciprocal interaction, Bandura viewed psychological functioning as resulting from a "continuous reciprocal interaction" amongst behavioral, cognitive, and environmental influences (p. 345). For instance, in the earlier cited example, a student is asked to deliver a speech in front of a class. The student's low self-efficacy beliefs and outcome expectations (i.e., cognitive or person variables) impair performance (i.e., behavior variables) by increasing emotional arousal and thereby elicit negative responses from the instructor and audience (e.g., environment variables), which serve to reinforce the low self-efficacy beliefs and outcome expectations. Making matters even worse, the student avoids future presentation situations, thus missing out on valuable practice opportunities and possible success experiences, and inadvertently maintaining the negative thoughts. Foster and her colleagues offer a similar example of a socially anxious adolescent, who holds strong beliefs that his peers do not like him (Foster, Kendall, & Guevremont, 1988). His negative thoughts (e.g., "No one will talk to me") lead him to behave in ways that further alienate his peers (e.g., acting aloof, appearing to be cold and disinterested). As a result, his peers actually do avoid him, and the avoidance strengthens his belief that he is disliked.

BRIEF OVERVIEW OF SLT INTERVENTIONS

The SLT principles reviewed in this chapter guide interventions for a wide variety of disorders and clinical problem areas. Indeed, SLT-based therapeutic procedures form the basis of cognitive-behavioral treatments, which are among the most popular and empirically supported approaches used by clinicians today. In this section, we offer a brief overview of the specific SLT-based procedures used in social skills interventions. A much more thorough review of these and other procedures is provided in the Chapter 7.

Fundamental to SLT-based interventions is the notion that the same learning principles that drive skill acquisition and maintenance in the natural environment are presumed to be operating in the therapeutic context as well. Although the importance of direct learning experiences and the environmental context are acknowledged, there is more of an emphasis on the cognitive processes that mediate environmental events and behavior. Dysfunctional behaviors, such as social skills deficits, are seen as the products of a complex interaction among cognitive events and processes, affect, overt behavior, and environmental contexts and events (Foster et al., 1988). Consistent with this perspective, Foster and colleagues note that change can be induced through a variety of methods, including those that are direct (e.g., behavioral rehearsal, reinforcement, and feedback), vicarious (e.g., modeling), or based on symbolically represented experience (e.g., social problem-solving skills and self-instruction skills training; Foster et al., 1988).

Social skill deficits are presumed to result from either a failure to learn the skills or the failure for already acquired skills to be sufficiently reinforced in the natural environment. Recalling the competence–performance distinction, another possibility is that some of the skill components have been acquired, but are not used because of interfering cognitions (e.g., low self-efficacy beliefs) or affect (e.g., anxiety). Note that from an SLT perspective this would be an instance of inadequate skill acquisition, because one or more of the "interlocking" skill components needed for enactment is absent. A skills deficit stemming from insufficient reinforcement of an already acquired response is perhaps the most straightforward intervention situation. In this case, the clinician could implement contingent reinforcement on a more continuous schedule within the therapeutic context and then systematically fade the reinforcement and work to transfer its delivery to significant others. As later discussed, the clinician can also use self-instruction strategies to teach clients how to monitor and reward their own skill use.

The use of reinforcement alone is not sufficient in instances when the skill is absent from the client's repertoire. In such cases, a sequence of instruction, modeling, rehearsal, feedback, and reinforcement is used. Training begins with the provision of a clear definition, description, and examples of each targeted skill. In addition, a rationale for learning the skill is usually provided, because it facilitates learning by helping the client to better understand the benefits of skill use and the functions served by the skill. Capitalizing on the earlier described observational learning processes, modeling can be used to provide the client with an opportunity to see examples of competent skill enactment, as well as [the] eliciting of positive outcomes for the model. It can take a variety of forms. For example, the performance can be live, videotaped, or imagined and is often accompanied by some commentary that helps focus attention on the particular aspects of the model's behavior or describe coping self-statements (Foster et al., 1988). In addition to teaching skills absent from the client's repertoire, modeling can be used to reduce or increase the probability that responses already in the repertoire will be displayed as a function of the observed consequences to the model, elicit responses already in the client's repertoire, provide new information that impacts self-regulatory functions (e.g., outcome expectations), direct the

client's attention to particular environmental cues, and alter arousal level (Foster et al., 1988).

Examples of approaches that focus more directly on the cognitive mediation processes inherent in SLT are social problem-solving skills and self-instruction skills training. Through social problem-solving training, clients learn the skills, mostly cognitive in nature, required to better define and solve challenging situations. Component target skills typically include defining the problem and a desired outcome, generating multiple alternative solutions, evaluating those solutions in terms of their likely consequences, selecting the best possible solution, making a plan for its implementation, and evaluating the outcome (D'Zurilla & Goldfried, 1971; Spivack & Shure, 1974). From an SLT perspective, a key advantage of this type of intervention is that it allows an individual to try out various solutions and consider their likely outcomes in a more symbolic fashion as opposed to engaging in repeated trials in the natural environment. Self-instruction skills training is used to enhance self-control by teaching clients how to set goals; use verbalizations that prompt, guide, and maintain performance toward reaching those goals; and to reward themselves for goal attainment (e.g., Meichenbaum & Goodman, 1971). This intervention approach capitalizes on the earlier described self-regulatory functions that are fundamental to the SLT perspective. Individuals exercise some influence over their own behavior because "the environment is partly of a person's own making" (Bandura, 1978, p. 345).

SUMMARY AND CONCLUSIONS

The rise of the social learning perspectives shifted the emphasis in prevailing social skills conceptualizations from overt behavior to the incorporation of a full range of cognitive, emotional, and behavioral skills and abilities, as well as motivational and expectancy sets. Many theorists from varying theoretical bents contributed to this movement, which had its roots in the efforts of some researchers to apply a Hullian perspective to the study of aggressive behavior. The idea that the reactions to the frustration thought to underlie aggressive responding were amenable to learning opened the door to the application of conditioning and socialization perspectives. Perhaps one of the most influential developments came when Bandura and Walters (1963) expanded the imitation concept proposed by Miller and Dollard (1941) to include the notion that observational learning could occur through vicarious reinforcement.

Current SLT approaches share the view that behavior is learned and influenced by environmental antecedents and consequences. Departing from their operant predecessors, however, these approaches also assume that cognitive processes play a vital mediational role between the environment and responding. Examples include the subjective evaluation of reinforcers, outcome expectancies, self-efficacy beliefs, and the self-regulatory functions. Another shared concept is that of reciprocal determinism. The connections among the environment, cognitions, and behavior are not unidirectional or bidirectional. Rather, they are considered to be "interlocking" influences that continually impact one another in a reciprocal manner.

In sum, social skills are learned behaviors. As other behaviors, they are acquired through a series of interactions between the individual and the environment. The learning process can be direct, involving actual exposure to the contingencies, or indirect, involving the observation of others. Indirect or vicarious learning can also occur through more symbolic means, such as spoken or written language. These same learning processes are also presumed to be operating in the therapeutic context. As such, the SLT perspective has given rise to a

host of social skills intervention procedures, including those that are direct (e.g., behavioral rehearsal, reinforcement, and feedback), vicarious (e.g., modeling), or based on symbolically represented experience (e.g., social problem-solving skills and self-instruction skills training).

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Part II

Applied Issues and Considerations

Chapter 4
Social Skills and Psychological Adjustment

Christopher Campbell, David J. Hansen, and Douglas W. Nangle

SOCIAL SKILLS AND PSYCHOLOGICAL ADJUSTMENT

Social interactions are an everyday occurrence for individuals of all ages. Indeed, their ubiquity and assumed importance to psychological adjustment have created serious challenges for those attempting to define and understand the nature of social competence. For many, social competence is essentially synonymous with competence in general (e.g., Goldfried & D'Zurilla, 1973; Trower, 1982). This encompassing view of social competence was used to challenge the prevailing disease models of psychopathology and helped give rise to the modern skill training approaches (Ford & Urban, 1998). Social behavior patterns were deemed problematic to the extent they resulted in dysfunction and not because of their presumed links to any form of psychopathology. Since maladaptive patterns were presumed to result from faulty learning, it was also assumed that they could be "corrected" through new learning experiences. With its widened purview, the social competence construct has stimulated an enormous body of related empirical research and therapeutic application. On the downside, however, this very broad view of competence has brought much confusion and a lack of consensus to those attempting to operationally define the construct (see Chapter 1). Commenting on its widespread use and connections to so many clinical problems, McFall (1982)

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questioned whether it was even possible for the construct "to retain any specificity or meaning or utility" (p. 2).

Debates about the exact nature of the competence aside, we start this chapter with a bit of a disclaimer. A comprehensive review of the theorized and demonstrated associations between social skills and psychological adjustment is worthy of a book in itself and is clearly beyond the scope of the present chapter. Instead, in keeping with the broader conceptualizations of the competence construct, we begin the chapter with an overview of the implications of social skills for more normative psychological well-being and adjustment throughout the life span. This is followed by a summative and necessarily limited review of the links between social skills deficits and clinical disorders. More extended discussion of particular clinical problem areas and disorders, as well as unique assessment concerns, are included in subsequent chapters in this volume. The dual emphasis on more normative functioning and clinical disorders in the present chapter is consistent with this volume's conceptual basis in social learning theory and the skills training approaches stemming from it. Of course, understanding the more normative functions of social skills provides practitioners with an enhanced appreciation of the potential impact of deficits. Further, the majority of practitioners will most likely apply social skills interventions for more normative adjustment difficulties (e.g., helping children experiencing loneliness, reducing parent–adolescent conflict, increasing assertiveness in romantic relationships), as well as clinical problems and disorders (e.g., increasing socialization for children with autistic disorder, improving social interactions for depressed teens, improving workplace functioning for adults with schizophrenia).

IMPACT ON NORMATIVE FUNCTIONING AND WELL-BEING

Social relationships are a central aspect of our lives, and the development, maintenance, and dissolution of interpersonal relationships are sources of intense emotion across the life span (Engels, Finkenauer, Meeus, & Deković, 2001). Social interactions create joy and happiness when things go well and are a source of distress and sadness when things go badly. Further, social skills are necessary for achieving a variety of common social (e.g., job interviews, promotions), emotional (e.g., effective stress management), and/or interpersonal goals (e.g., assertiveness skills; Kelly & Hansen, 1987; Tsang & Cheung, 2005). Our ability to successfully interact with others and use language to obtain personal goals is a skill, whether verbal or nonverbal in nature.

The acquisition, development, and maintenance of social skills remain important across the life span. In the preschool years, peer relations serve as an important context for socialization, and successful relations may be necessary for normal social development (Ladd, 2006). Peer group interactions and friendships in childhood serve as building blocks for future relationships, providing companionship, entertainment, and unique opportunities for interpersonal learning (Hartup, 1983, 1996). As children transition from grade school to adolescence, play declines and more time is spent talking and hanging out with friends (Bierman & Welsh, 2000). In adolescence, peers become increasingly influential socialization agents and play a unique role in the transition to early adulthood. Though much of the current literature has focused on the early development of social skills, social interactions continue to play an important role in early, middle, and late adulthood (Erber, 2005). In fact, some research suggests that social interactions and support actually improves the physical and mental health of older adults (e.g., Erber, 2005; Fiori, Antonucci, & Cortina, 2006).

Effective and appropriate social interactions are necessary for successful functioning across multiple settings (e.g., home, school, work, and social events) and with a variety

of people including family, friends, significant others, supervisors, and other members in the community (Hansen, Giacoletti, & Nangle, 1995; Kelly & Hansen, 1987). Individuals regarded as interpersonally skillful or socially competent exhibit the ability to handle other people effectively in diverse social settings and may be perceived as highly reinforcing to those with whom they interact (Kelly, 1982).

On the other hand, some individuals experience difficulties in acquiring the skills necessary to navigate their social environments. As a result, attempts at social interactions may be unsuccessful, and many personally significant goals may prove unattainable (Kelly, 1982). Initial social skills deficits are often compounded and lead to more long-term adjustment problems due to the bidirectional and transactional nature of the interplay between individuals and their environments. That is, social skills deficits often limit the possibilities for future interactions and, consequently, limit further skill development (Hansen et al., 1995). For instance, a child lacking appropriate social skills may come to be viewed as an unrewarding play partner and be excluded from peer group activities. As a result, this child may spend more time alone or interacting with other less skilled peers, thus limiting future opportunities to learn age-appropriate social skills. Moreover, continued rejection or ostracizing by more competent peers may further restrict the child's skill repertoire through the active punishment of ostensibly appropriate social behaviors. In a similar fashion, an adolescent with deficits in conversation skills may experience difficulties in initiating dates and other social engagements or an adult lacking the social skills necessary for a successful job interview may face repeated rejection and continued unemployment.

Developmental Overview

Childhood. At or before the age of two, children generally show an increased interest in adults and other children, cooperate in routine activities, and participate in social interactions such as play (Hurlock, 1972). Thus, in a relatively short period of time, infants develop the ability to actively participate in and initiate social interactions. Very quickly, such interactive behaviors become increasingly complex and organized. In fact, by age two-and-a-half, children are able to signal interest in one another, exchange roles, sustain a common focus in play, and make repeated efforts to gain each other's attention (Rubin, 1980).

Children between the ages of 2 and 6 years spend increasing amounts of time with other children, particularly those of a similar age, and their social interaction skills increase. Early peer interactions initiate and support the development of critical social skills, enhance interpersonal understanding, and foster feelings of social self-worth (Hartup, 1983; Parker, Rubin, Price, & DeRosier, 1995). Notably, friendships during this period are more fluid than those formed in middle childhood, which allows children a better chance at recovering from social blunders without the damage to their social reputations that frequently occurs during later years (Bierman & Erath, 2006).

Despite the lack of a unitary definition of social competence, there are generally agreed upon features that characterize competent social development in early childhood (Fabes, Gaertner, & Popp, 2006). These features include (a) the ability to interact effectively and to develop positive relationships; (b) the ability to initiate and maintain relationships with social partners, particularly with peers; (c) coordination and communication of their actions and feelings with those of others; (d) progressive engagement in greater levels of cooperative and pretend play; (e) more comfort when encountering social experiences in both dyadic and group contexts; and (f) the ability to control and adjust their emotions and actions during the course of social interactions (e.g., Fabes et al., 2006; Rubin, Bukowski, & Parker, 2006).

During middle and late childhood, children spend more time with their peers than they did in early childhood. They learn to take the perspective of their peers more readily than they were able to in the past, and their social knowledge of how to make and keep friends increases (Santrock, 2006). However, peer problems become more complicated during later childhood due to the increasing influence of social reputations and complex peer group structures (Bierman, 2004).

The development of social and communication skills in peer group interactions in middle and late childhood builds the foundation for later successful life adjustment (Rubin et al., 2006). Peer interactions initiate, motivate, and support the development of critical social skills, enhance interpersonal understanding, and foster feelings of social self-worth (Hartup, 1983; Parker et al., 1995). Conversely, many studies have demonstrated links between poor peer relationships in childhood and both concurrent and long-term adjustment difficulties. For example, peer disapproval and social isolation may lead to feelings of loneliness, insecurity, and anger, creating vulnerability to depression, anxiety, and alienation (Boivin, Hymel, & Bukowski, 1995). Rejected children tend to be more stable in social status over time (e.g., Coie & Dodge, 1983), resort to disruptive and/or aggressive solutions to problems (e.g., Fabes et al., 2006), and experience continued social problems, loneliness, poor school adjustment, greater academic difficulties, and later adult mental health problems (e.g., Ladd & Asher, 1985).

Adolescence. Adolescence is a transitional period characterized by a multitude of physical, cognitive, emotional, and behavioral changes accompanied by alterations in social contexts and expectations (Hansen et al., 1995). Throughout adolescence, friends become increasingly important in meeting unique social needs, such as the need for affection, intimacy, companionship, and nurturance, and relationships with others require new, and more complex, interpersonal skills (Furman & Robbins, 1985; Hartup, 1983). Hansen et al. (1995) highlight a number of different ways in which social interactions play a critical role in adolescent psychological adjustment, including (a) establishing support systems for emotional and social needs; (b) developing moral judgment and social values; (c) improving or maintaining self-esteem; (d) promotion of interpersonal competence and adult-like social behavior; (e) development of independence assertion that aids in the separation from the family; (f) recreation, including entertainment and sexual stimulation; (g) enhancement of social status within the peer group; (h) developing sexual attitudes, interests, and sex-role behaviors; (i) experimentation, particularly with sex-role behaviors and sexual activity; and (j) courtship and mate selection.

Understandably given their importance during this developmental period, poor peer relationships in adolescence are associated with a full range of adjustment problems. For instance, teens not accepted by their peers are more likely to drop out of school (Parker & Asher, 1987). Those with skills deficits and concomitant aggressive behavior are at risk for developing a number of difficulties that can escalate and contribute to various forms of maladjustment ranging from emotional difficulties (e.g., anxiety, depression, reduced sense of self-worth) to antisocial behaviors (e.g., substance use, delinquent activities; Dodge, Coie, & Lynam, 2006; Parker et al., 1995). Notably, the detrimental effects of inadequate social skills often become more pronounced as the adolescents become older (Buhrmester, 1990).

Adulthood. For adults, social skills play a vital role in many aspects of life, including the initiation, development, maintenance, and termination of romantic relationships (see Dindia & Timmerman, 2003, for a review). Individuals with poor social skills are less satisfied and successful with their romantic relationships or marriages (Burleson, 1995). Not surprisingly, empirical research has also found that communication skills are critical to emotional support, conflict resolution, and overall satisfaction in marriage or married-like relationships (see Kelly, Fincham, & Beach, 2003, for a review).

As individuals progress through the later stages of adulthood, their physical functioning decreases, and these declines in health can restrict their capacity to socialize with others. For example, declines in working memory capacity and processing speed (e.g., Kemper, Kynette, Rash, O'Brien, & Sprott, 1989), as well as losses in hearing and vision (e.g., Maurer & Rupp, 1979), may exacerbate problems and limit the ability of aging adults to detect, produce, comprehend, and/or respond to relevant social cues. In addition, the social network size decreases as long-term companions die, thereby shrinking the pool of potential companions from whom elderly adults can establish new friendships (Matthews, 1986).

Social interactions and support may improve both the physical and mental health of older adults (e.g., Erber, 2005; Fiori et al., 2006). For example, individuals with strong social networks experience lower mortality rates (Berkman & Syme, 1979), less depression (Cutrona, 1989), and fewer psychological and physical health problems (DeLongis, Folkman, & Lazarus, 1988). In contrast, poor social interactions, infrequent participation in social activities, and social disengagement predict cognitive decline in older adults (Zunzunegui, Alvarado, Del Ser, & Otero, 2003).

RELATIONSHIP OF SOCIAL SKILLS AND CLINICAL DISORDERS

Problematic social interactions and social skills deficits are associated with a wide variety of psychological disorders and problems, including depression, anxiety, personality disorders, and even severe mental illness. In fact, the general definition of a *mental disorder* in the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV-TR; APA, 2000) includes specific mention of impairments in social functioning as part of its clinical significance requirements. Regarding particular disorders, approximately 45% of the Axis I clinical syndromes and nearly all of the Axis II personality disorders have problematic social functioning listed as a possible criterion, and the majority of the remaining disorders have important social implications (Hansen et al., 1995). Axis V of the DSM-IV, the Global Assessment of Functioning Scale (GAF), utilizes a continuum to describe psychological, social, and occupational functioning. The DSM-IV also proposes an additional scale, the Social and Occupational Functioning Assessment Scale (SOFAS), that could be useful in some settings to "assess social and occupational disability and to track progress in rehabilitation independent of the severity of the psychological symptoms" (p. 33).

Before turning to an overview of particular disorder types and their social skills implications, it is worth addressing the question of how deficits and disorders may be linked to one another. A full discussion is beyond the scope of this chapter, but Trower and his colleagues have proposed a rather straightforward distillation (Trower, Bryant, & Argyle, 1978). According to these authors, there are two ways that disorders can be caused or worsened by the lack of social competence. One, the incompetence can be primary in that it results in rejection and social isolation that in turn leads to psychological disturbance. Two, a psychological disturbance may lead to a wide range of problems, including social incompetence, and the resulting rejection and social isolation adds to the overall stress and continued declines.

Disorders Diagnosed in Childhood and Adolescence

Mental Retardation (Intellectual Disability). Similar to Lecavalier and Butter (this volume), we will use the term *intellectual disability* in this chapter rather than mental retardation. Though inadequate social skills are a defining characteristic of individuals with intellectual disabilities (American Association on Mental Retardation, 1992), the empirical research in

this area is limited (see Chapter 13). However, the available research demonstrates that social skills deficits can have profound effects for both children and adults with intellectual disabilities (Huang & Cuvo, 1997). In fact, cognitive limitations may exacerbate social skills problems, as people with intellectual disabilities can experience difficulties understanding how to behave in various social settings.

Not surprisingly, children with intellectual disabilities experience social isolation (McAndrew, 1979), have limited social competence (Wallander & Hubert, 1987), and are more likely to play alone than other children (Thomas, Bax, & Smyth, 1988). It is commonly assumed that placing children with disabilities in mainstream classrooms will increase their social interactions with other peers and result in social acceptance (e.g., Gresham, 1982). However, studies have shown that simply placing a student with intellectual disabilities in a classroom of typically developing peers does not necessarily lead to increased social interactions or to the development of social skills (e.g., Staub, Spaulding, Peck, Gallucci, & Schwartz, 1996). Adolescents with intellectual disabilities also tend to have fewer friends, and their social relationships tend to be less intimate, less empathetic, and with same-sex relatives (Zetlin & Murtaugh, 1988).

Mood Disorders. Social skills deficits have long been posited to foster and be exacerbated by depressive symptoms (e.g., Lewinsohn, 1974). Overall, children who are rejected by their peers are more likely to experience increased levels of loneliness and depressive symptomatology (e.g., Boivin et al., 1995). Moreover, children who experience difficulties with friendships at (or even after) the onset of depression are more likely to experience persistent symptoms of depression (Goodyer, Herbert, Secher, & Pearson, 1997), and greater social impairment is associated with an increased recurrence of depression in childhood (Warner, Weissman, Fendrick, Wickramaratne, & Moreau, 1992). Consequently, major depression in childhood may result in long-term sequelae such as lingering impairment in social and emotional functioning, as well as continued vulnerability for relapse (Pataki & Carlson, 1990).

Depressed adolescents demonstrate significant difficulties in many aspects of their close friendships (e.g., less support) and peer relationships (e.g., less secure attachment; see Gotlib & Hammen, 1992, for a review). In high school, greater self-reported depressive symptoms are related to the perception of less emotional support from friends and family members (Lewinsohn et al., 1994), less perceived warmth from parents and peers (Greenberger, Chen, Tally, & Dong, 2000), higher levels of hostility with close friends, and less reciprocal friendship relations (Windle, 1994). The negative impact of depression on peer relationships is reflected by lower levels of popularity, and higher levels of social rejection and isolation for depressed adolescents (e.g., Connolly, Geller, Marton, & Kutcher, 1992). Teens who are depressed perceive themselves to be less adept in the domains of close friendship, social acceptance, and romantic appeal than healthy controls (Lewinsohn et al., 1994). Moreover, depressed youth are viewed negatively in terms of interpersonal skill, attractiveness, and functioning by others, including peers (Baker, Milich, & Manolis, 1996), peer confederates (Connolly et al., 1992), schoolmates (Faust, Baum, & Forehand, 1985), teachers (Dalley, Bolocofsky, & Karlin, 1994), trained observers (Rudolph, Hammen, & Burge, 1994), and clinical interviewers (Puig-Antich et al., 1993).

Anxiety Disorders. Social anxiety is thought to stem, at least in part, from a deficit in social and interpersonal skill (Hope & Heimberg, 1990). While much of the literature on social phobia has focused on adults, research suggests that the onset of social phobia usually occurs in adolescence and may occur in children as young as 8 years of age (Beidel, Turner, & Morris, 1999). Social phobia in children is associated with a variety of social skills deficits and poor outcomes from social interactions (Spence, Donovan, & Brechman-Toussaint, 1999). For instance, Spence and colleagues (1999) found that, when compared to

other children, socially anxious children responded to social prompts using fewer words, initiated social interactions less frequently, participated in fewer social interactions in a school environment, anticipated negative outcomes in socially evaluative situations, evaluated their own performance more negatively, and showed a higher level of negative cognitions in relation to socially evaluated tasks. Social withdrawal can also initiate and maintain this negative social cycle (i.e., unsuccessful social situations → expectations of poor outcomes → negative thoughts about future social situations) possibly resulting in peer exclusion, victimization, and finally a sense of increased insecurity and social withdrawal (Rubin et al., 2006).

Pervasive Developmental Disorders. The current diagnostic criteria for Autism Spectrum Disorders (ASDs)/Pervasive Developmental Disorders (PDDs) in the DSM-IV-TR follows Rutter's (1978) and Wing and Gould's (1979) concepts of autism as a "triad of impairments" meaning impairments in socialization, communication, and range of behaviors, interests, and activities. Though the social impairment is most salient and perhaps most important (Klin, Jones, Schultz, Volkmar, & Cohen, 2002; Newsom & Hovanitz, 2006), a diagnosis requires all three impairment types to a marked degree.

In early childhood, children with autistic disorder often have verbal skills that are lower than nonverbal skills (Carpentieri & Morgan, 1994). For example, in children who experience difficulties in fluency, or phrase speech, comprehension is usually more impaired than expression, which is the opposite of what is observed in typical development and in developmental language disorders (Fein, Lucci, Braverman, & Waterhouse, 1992). Children with autism spectrum disorders often make serious errors in decoding and interpreting social information (Webb, Miller, Pierce, Strawser, & Jones, 2004). For instance, they may fail to make an appropriate response to a comment, elaborate on comments, or recognize the connotations of words, make inferences, or understand how a speaker's attitude modifies literal meaning (Dennis, Lazenby, & Lockyer, 2001; Happé, 1993). As a result, children with autism spectrum disorders may fail to use or understand such things as irony, faux pas, jokes, lies, and metaphors (Newsom & Hovanitz, 2006). These difficulties attending to and processing social information and/or problems engaging in social modeling impedes the child's ability to learn (Koegel, Koegel, Frea, & Smith, 1995). Deficits in social skills can have long-term implications in areas such as employment, where deficiencies in social skills are more likely to cause the termination of employment than are nonsocial factors (Jackson, Jackson, & Bennett, 1998).

Currently, in clinical practice, the diagnosis of Asperger's Syndrome (AS) is often applied to children with autistic features at the upper levels of intelligence (Newsom & Hovanitz, 2006); however, the idea that the syndrome is distinct autistic disorder still subject to debate (Gillberg, 2001). The confusion is due, at least in part, to the fact that children with AS share similar social impairments and restricted, stereotyped interests that are characteristic of children with autistic disorder, but do not exhibit the same severe language impairments. Children with AS are often of average or higher intelligence, but tend to be extremely egocentric, socially inept, and preoccupied with some highly circumscribed interest (Newsom & Hovanitz, 2006). They may be perceived as socially naïve and behaviorally rigid, because they compensate for their lack of intuitive, spontaneous social skills by interacting according to formal rules of behavior and rigid social conventions (Klin & Volkmar, 1995). Although their speech is grammatically correct, often with large vocabularies, it is noticeably odd in intonation, volume, and rhythm (Newsom & Hovanitz, 2006), as well as tangential and circumstantial, indicative of a thought disorder (Dykens, Volkmar, & Glick, 1991). Moreover, children with AS are markedly loquacious, often rambling at great length about topics of interest only to themselves while oblivious to various social cues exhibited by the listener such as boredom or exasperation (Newsom & Hovanitz, 2006).

Attention-Deficit/Hyperactivity Disorder. An expanding body of literature documents the social difficulties associated with attention deficit hyperactivity disorder (ADHD) in children. For instance, children with ADHD are often likely to experience impairment in social, academic, familial, and later occupational domains (see Barkley, 2003, for a review). Among the diverse symptoms exhibited by children with ADHD are difficulties making and keeping friends (Whalen & Henker, 1985), disturbed relationships with peers (Landau & Moore, 1991), and marked deficiencies in appropriate social behavior (Pelham & Bender, 1982).

Children with ADHD often differ from their peers in that they exhibit higher rates of intense, unmodulated behaviors that are inappropriate in some social contexts and are insensitive to social expectations (e.g., yelling, talking at inappropriate times, running around; Whalen & Henker, 1985). These patterns of disruptive, intrusive, excessive, negative, and emotional social interactions also occur in interactions with their teachers and peers. Not surprisingly, children with ADHD receive more correction, punishment (including suspensions and expulsions), and criticism from teachers than do other peers (Barkley, Fischer, Edelbrock, & Smallish, 1990). They also tend to have fewer friends and experience overwhelming peer rejection (Erhardt & Hinshaw, 1994). Adolescents with ADHD are likely to be more talkative, negative and defiant, less compliant and cooperative, more demanding of assistance from others, and less able to work independently (Johnston, 1996). Further, empirical findings suggest that these problems in childhood hinder later social adjustment, and children with ADHD are at increased risk for a variety of other negative outcomes in adulthood, including academic and occupational impairments, low self-esteem, and social problems (Weiss & Hechtman, 1986).

Social skills deficits are also prominent features associated with a wide variety of psychological problems and difficulties exhibited by youth with disruptive, externalizing behavior disorders. Children with conduct problems experience deficits in encoding (e.g., lack of attention to relevant social cues, hypervigilant biases), make more hostile attributional biases and errors in the interpretation of social cues, have deficient quantity and quality of generated solutions to social situations, evaluate aggressive solutions more positively, and are more likely to decide to engage in aggressive behavior (McMahon, Wells, & Kotler, 2006). Increased levels of aggression are less likely to disturb peer interactions during the preschool years than in elementary school (Hartup, 1983). However, the capacity to control aggression is increasingly important during the preschool years (Bierman, Torres, & Schofield, this volume), as those who continue to exhibit disruptive and argumentative behaviors are more likely to experience peer rejection and/or retaliation (Ladd, Price, & Hart, 1988). Conduct-disordered youth are also deficient in cognitive problem-solving skills that underlie social interactions (Dodge, 1985). For instance, compared to their peers, youth with antisocial behaviors are more likely to interpret gestures made by others as hostile, are less able to identify solutions to interpersonal problems, and have greater difficulty taking the perspective of others (Kazdin, 1990). However, not all aggressive children are rejected. Aggressive or disruptive children are most likely to be rejected when they show a wide range of behavioral problems, including disruptive, hyperactive, reactive, and verbal aggression, as well as physical aggression, low levels of prosocial behavior, and elevated rates of inattentive and immature behaviors (e.g., Bierman, Smoot, & Aumiller, 1993). Overall, children who are socially rejected exhibit significant skill deficits, and behavioral problems are at increased risk for ongoing social dysfunction (Bierman & Wargo, 1995).

Other Disorders of Childhood and Adolescence. Many important social skills are contingent upon expressive and receptive language abilities. The ability to adequately express one's own ideas, needs, and goals, as well as the capacity to understand others, hinges on linguistic competence (Fabes et al., 2006). Empirical studies investigating the relationship between social skills and learning disabilities suggest that difficulties in achieving social acceptance may be related to students' deficient perception and interpretation of social and emotional

cues in social situations (Lipka & Siegel, 2006). For example, children with language impairments may demonstrate problems in conversational skills and social understanding, resulting in less positive interactions and potential peer rejection (Craig, 1993). The social interactions of children with communication disorders look qualitatively different with regards to both frequency and quality of interaction than interactions of same-age peers with typical language abilities (Craig, 1993). Thus, parents of early adolescents with learning disabilities report that their children are more likely to choose younger playmates than children without learning disabilities (Wiener & Sunohara, 1998). Therefore, the expressive and receptive language skills deficits experienced by children with communication disorders may have substantial and enduring impact on their socially competent behavior.

Disorders Diagnosed in Adulthood

Mood Disorders. While considerable debate exists over the direction of causality between depression and social skills, research continually supports a strong relationship between both constructs (Segrin, 2000). Despite debates over causality, dysphoric and clinically depressed individuals often exhibit significant social deficits, including fewer social skills (Youngren & Lewinsohn, 1980), fewer close relationships (Billings & Moos, 1985; Gotlib & Lee, 1989), less elaborated social networks (Gotlib, 1992), less rewarding relationships (Joiner & Metalsky, 1995), fewer social contacts (Gotlib & Lee, 1989), less social support (Joiner 1997), and more marital problems and family arguments (Beach, Smith, & Fincham, 1994). Adding to these difficulties, individuals with depression have been found to be more pessimistic in expectations about their current and future social relationships (e.g., Hokanson & Rubert, 1991) and perceive family relationships as less supportive (e.g., Billings & Moos, 1985). Moreover, these interpersonal deficits remain stable across periods of depression and remission (Gotlib & Lee, 1989) and are predictive of future symptomatology and course (Joiner & Metalsky, 1995).

Anxiety Disorders. Early theories of social anxiety assumed that the related distress was due to a deficit in social skills (e.g., Stravynski & Greenberg, 1989; Trower et al., 1978). However, it remains questionable whether socially anxious individuals are indeed deficient in any of their social skills (e.g., Hofmann, Gerlach, Wender, & Roth, 1997; Stopa & Clark, 1993). In fact, Clark and Wells (1995) proposed that most socially phobic people have adequate social skills, and their behaviors can be explained as safety behaviors used to decrease attention on particular nervous behaviors (e.g., limited eye contact in order to avoid attention by others who might observe signs of somatic distress). Nevertheless, individuals with high social anxiety are less likely to be engaged in social interactions, speak less, have reduced eye contact, and work to exit interactions quickly (Leary & Kowalski, 1995). Additionally, socially anxious individually have fewer sources of social support (Davidson, Hughes, George, & Blazer, 1993), a negative perception of their own social skill ability (Wallace & Alden, 1997) experience an attentional bias for threat-related cues, and are more likely to notice and interpret ambiguous social cues as actual or potentially negative evaluations (Stopa & Clark, 1993). Socially anxious individuals also tend to interact with other people using polite smiling, agreeableness, and increased head nodding (Leary, Knight, & Johnson, 1987), frequent use of excuses and apologies (Edelman, 1987), fewer behaviors of social cooperativeness and dominance (Walters & Hope, 1998), and may appear distant and unfriendly (Stopa & Clark, 1993).

Schizophrenia and Other Psychotic Disorders. Noticeable deficits in social competence are one of the defining characteristics of people with schizophrenia (Tsang & Cheung, 2005), and it is well documented that people with schizophrenia have significant deficits in social skills and social performance (e.g., Bellack, Morrison, Mueser, Wade, & Sayers, 1990). In

fact, before the onset of schizophrenia, some individuals may experience impairments in their premorbid social functioning (Zigler & Glick, 1986). For instance, some children and adolescents that later develop schizophrenia were more socially isolated, had fewer friends, and passed fewer social-sexual developmental milestones (Mueser & Sayers, 1992). Since the onset of schizophrenia usually occurs during early adult (typically between the ages of 16 and 25), many developmental tasks are disrupted, including the formation of close interpersonal and dating relationships (Mueser & Sayers, 1992). For instance, compared to those without symptoms, individuals with schizophrenia have poorer social adjustment (Mueser, Bellack, Morrison, & Wixted, 1990), fewer social skills (Liberman, 1982), less elaborated social networks (Hammer, 1981), poorer social functioning in the community (Halford & Hayes, 1995), and less overall social competence (Mueser et al., 1990). Deficiencies include both basic (e.g., eye contact while having a conversation; expressing a greeting at the beginning of an interpersonal interaction) and complex (e.g., negotiating a contract; settling a dispute) social skills deficits, and these deficiencies often lead to dysfunctional social and interpersonal functioning (Smith, Bellack, & Liberman, 1996). Individuals with schizophrenia may have difficulties in establishing and maintaining social relationships, including ineffective interactions with family and friends (Tsang & Cheung, 2005), lack the skills necessary for independent living (Liberman, DeRisi, & Mueser, 1989), and experience serious employment problems as a result of social skill deficits (Tsang & Pearson, 2000). Even when positive symptoms (e.g., delusions, hallucinations) are reduced using pharmacotherapy, negative symptoms such as affective flattening and alogia may persist and contribute to ongoing social difficulties (Vogler, Spaulding, Kleinlein, & Johnson, this volume).

Personality Disorders. The presence of any personality disorder is associated with interpersonal deficiencies, including poor social support and greater severity of psychosocial stressors (Pfohl, Stangl, & Zimmerman, 1984), the risk of being single, separated, or divorced (Flick, Roy-Byrne, Cowley, Shores, & Dunner, 1993), and poorer overall social adjustment (Shea et al., 1990).

Borderline personality disorder (BPD) is characterized by affective instability, cognitive deficits, impulsive acts, and often conceptualized to a substantial degree in terms of dysfunctional interpersonal relationships (APA, 2000; Daley, Burge, & Hammen, 2000). Arguably, the presence of unstable, intense interpersonal relationships is among the most useful criteria in identifying individuals with BPD (Nurnberg, Hurt, Feldman, & Suh, 1988). BPD has been associated with shorter duration of friendships, lack of a confidant or romantic partner, and fewer social activities in adolescence (Bernstein et al., 1993), as well as a higher number of breakups of important relationships (Labonte & Paris, 1993) and decreased likelihood of being married in adulthood (Swartz, Blazer, George, & Winfield, 1990). Yeomans, Hull, and Clarkin (1994) found that in a sample of clients with BPD higher levels of self-destructiveness were associated with greater instability in interpersonal relationships, greater difficulty with intimacy, and greater difficulty being sociable.

Distinct from other personality disorders, the essential feature of Antisocial Personality Disorder (APD) is a "pervasive pattern of disregard for, and violation of, the rights of others that begins in childhood or early adolescence and continues into adulthood" (APA, 2000, p. 701). Typical behaviors include failure to comply with societal norms, unprovoked aggression and violence, deceitfulness and manipulation of others for personal gain, and disregard for the wishes, rights, and feelings of others (Serin & Marshall, 2003). Individuals frequently lack empathy and are described as callous, cynical, and contemptuous of the feelings of others, have an inflated self-appraisal, are excessively opinionated, and display a superficial charm (APA, 2000). Although the disorder is considered chronic, some individuals do improve and symptoms may remit, but for most individuals, APD leads to lifelong difficulties, including criminal behavior (Black, 2007).

Other personality disorders also have defining symptoms connected to social skill deficiencies. Individuals with *schizoid* personality traits are typically loners, indifferent toward others, and display social indifference (APA, 2000). Most individuals do not possess the skills necessary for effective social interactions, and further, appear uninterested in acquiring such skills (Serin & Marshall, 2003). Pervasive suspiciousness about the motives of other people and a tendency to interpret what others say in a personally meaningful but negative manner are primary features of individuals with *paranoid* personality traits (Serin & Marshall, 2003). Not surprisingly, these individuals have considerable problems in social relationships and are more likely to misread social cues as threatening or evidence of hostility by others (Turkat, Keane, & Thompson-Pope, 1990). Often times, individuals with paranoid characteristics are hypervigilant, taking precautions against potential threats from others, and reluctance to share anything personal for fear it might be used against them (Serin & Marshall, 2003). Last, individuals who present with *schizotypal* personality features (e.g., eccentric thought and behavior) are typically socially isolated, which in turn may increase the likelihood of experiencing unusual thoughts and perceptions as they have limited social opportunities to receive feedback regarding the plausibility of their cognitions (Serin & Marshall, 2003).

SUMMARY AND CONCLUSION

Social relationships are central to our lives and the acquisition, development, and maintenance of social skills are thus crucial to our overall psychological adjustment and well-being across the life span. Numerous studies have demonstrated links between social skills and relationships and concurrent and long-term functioning. For example, poor peer relationships in childhood may lead to a variety of problems, such as loneliness, vulnerability to depression and anxiety, aggressive behavior, academic difficulties, and later adult mental health problems. Adults with poor social skills may experience a wide range of difficulties in relationships and conflict resolution, including less satisfaction and success with romantic partnerships or marriage. In addition, social skills deficits are also associated with a wide variety of psychiatric diagnoses, including disruptive behavior disorders, developmental disorders, depression, anxiety, schizophrenia, personality disorders, and other conditions. The importance of social relationships is also evident in the clinical significance criterion included for most *DSM-IV* disorders (APA, 2000), often worded "...causes clinically significant distress or impairment in social, occupational, or other important areas of functioning."

Social skills deficits are frequently compounded and lead to further adjustment problems, because initial deficits can limit opportunities for future interactions and relationships, which then limit further development of skills and expands the negative impact. As described by Trower and colleagues (1978), psychological disorders may be caused or worsened by a lack of social skills in two ways: (a) social incompetence may result in rejection and social isolation which causes psychological disturbance, or (b) a psychological disturbance may cause a variety of problems, including social incompetence, and the resulting rejection and isolation cause further declines.

Subsequent chapters in this volume further illustrate the important and ubiquitous nature of social skills throughout the life span. The widespread need for assessment of social skills across a variety of contexts and disorders has led to a proliferation of valuable measures to help in our efforts to understand and improve social competence and related adjustment issues.

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Chapter 5
Assessing Children and Adolescents

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ASSESSING CHILDREN AND ADOLESCENTS

When assessing the social skills of children and adolescents, researchers and practitioners tend to pursue several goals. Typically, the first goal is to identify those who are in need of intervention due to particular social skill deficits or behavioral excesses. The second goal of assessment is to determine the specific social skills, as well as the particular problematic social situations, that should be targeted for intervention. Following the implementation of social skills training, the third goal of assessment is to evaluate the effectiveness of the intervention (Bierman, 2004; Inderbitzen, 1994).

As discussed in Chapter 1, defining and therefore assessing social competence are challenging tasks. Viewing competence as a multilevel construct, Cavell (1990) distinguishes among *social skills*, defined as the specific abilities that individuals use to produce a certain social response, *social performance*, which refers to the overall quality of individuals' responses in relevant social situations, and *social adjustment,* which reflects the extent to which individuals are achieving developmentally appropriate goals, including social acceptance by peers and emotional well-being. As such, he suggests that researchers and practitioners incorporate assessments of not only specific behavioral skills across different types of social situations but also indexes of social adjustment such as peer acceptance, loneliness, and self-esteem.

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In this chapter, we first consider the source of the information that is obtained in social skills assessments. Researchers and practitioners can choose from many different informants and we lay out some of the advantages and disadvantages of each type. Next, we review the different techniques used to assess social competence. An overview of each technique, as well as its particular strengths and weaknesses, is followed by examples and a discussion of developmental considerations. Finally, the chapter closes with a review of special considerations related to the assessment of social skills, such as gender, ethnicity, and developmental disabilities.

VARIOUS INFORMANTS FOR ASSESSING SOCIAL SKILLS: ADVANTAGES AND DISADVANTAGES

Evaluations of children's and adolescents' social competence may be provided by different information sources, including peers, teachers, parents, outside observers, and the self. Each type of information source has certain advantages and disadvantages. To capitalize on the unique strengths of the different types of informants, assessments of a single child are frequently obtained from several sources. It is clearly useful when the informants' evaluations converge, but it is also quite informative when discrepancies among informants occur (Renk & Phares, 2004). Overall, the data based on multiple perspectives provide a more complete picture of a child's skills across a range of contexts.

Peers

Peers can be a very valuable source of information regarding a child's social skills. A great strength of peer informants is that they tend to have access to a variety of behaviors across many settings—often settings to which adults may not have access (e.g., the fringes of the playground, the back of the school bus). In addition, peers are evaluating the child's behavior from a child's perspective. Furthermore, peer ratings are obtained from many individuals, and thus the reliability of these ratings may be increased because the potential influence of individual bias is reduced (Bierman, 2004). On the other hand, it is possible that the perceptions of many of the peer group members are colored by reputational biases (Hymel, Wagner, & Butler, 1990). Consequently, for example, a child who has a reputation for being a bully may continue to be rated as quite aggressive even after his or her aggressive behavior has decreased following an intervention. Another possible disadvantage of peer informants is that children may be less aware of certain types of behaviors. Although even young children easily observe and accurately report physically aggressive behaviors in their peers, they are less able to recognize more subtle behaviors. Indeed, it appears that children cannot reliably report on socially withdrawn behaviors in their peers until they are about eight years of age (Younger, Schwartzman, & Ledingham, 1986). Finally, peer measures pose a number of practical challenges. Parental consent must be obtained, and parents may be hesitant about having their children evaluate (and be evaluated by) their peers. Typically classroom time is used to collect the data, and often teachers and school administrators are reluctant to have instructional time used for this purpose (Pakaslahti & Keltikangas-Jarvinen, 2000).

Teachers

Teachers are frequently asked to serve as informants regarding children's social skills. An advantage of using teachers as evaluators is that they generally are able to observe children

interacting with peers across many contexts within the school setting. In addition, teachers usually have a great deal of experience with many children, so they tend to have a better understanding of what types of behavior are normative for a particular age group (Pakaslahti & Keltikangas-Jarvinen, 2000). Despite having many opportunities to observe peer interactions, teachers do not have access to all the social interaction contexts that peers do. Moreover, compared to teachers of preschool and elementary school students who may spend much of the day with a specific group of children, teachers of adolescents may spend only a relatively short time with their students daily. Thus, teachers of adolescents may have a fairly limited set of observations on which to base their evaluations. Teachers assess students' behaviors from an adult perspective, which may lead them to interpret certain behaviors differently than peers would. For example, behavior that peers may label as "humorous," adults may label as "disruptive." Teacher ratings typically come from just one person, and so individual biases could compromise the validity of the assessment. A teacher's ratings can be heavily influenced by the child's classroom behavior (Bierman, 2004). For example, the teacher may underestimate the peer acceptance of a disruptive child as the teacher's disapproval for the disruptive behavior may lead to an assumption that peers dislike that behavior as well.

Parents

As adults who have extensive experience with their child, parents are often asked to evaluate their child's social competence. A major asset of parental assessments is that they are based on observations of behavior across many contexts and over an extended period. However, parents tend to have limited information about their child's peer interactions in school. Like teachers, parents evaluate behavior from an adult perspective. Unlike teachers, parents usually do not have access to a normative peer group against which they can compare their child's behaviors (Bierman, 2004). Furthermore, parents' evaluations of their children's behavior may be impacted by their emotional attachment to their child (Schneider & Byrne, 1989). For example, parents may rate their child as more prosocial and less aggressive than others do.

Trained Observers

In addition to obtaining assessments from those who are familiar with the child, evaluation of the child can be done by trained adult observers who are unfamiliar with the child. Direct observations by someone who does not know the child have the advantage of being objective, since the observer has no emotional attachment to the child and is not impacted by reputational biases. However, often it is difficult for the observer to be unobtrusive, and the presence of an observer can influence the child's behaviors. In addition, some low-frequency events (e.g., fights) may not be seen, and more subtle behaviors (e.g., relational aggression) may be missed. These types of critical events in the child's peer interactions may have a large social impact when they do occur, but the observer may not have access to these behaviors and thus may not obtain a complete picture of the child's social functioning (Bierman, 2004). Another drawback of observations is that it can take a considerable amount of time to train observers, conduct observations in multiple settings, and code the data (Inderbitzen, 1994). Finally, observers tend to interpret a child's social behaviors from an adult perspective.

Self-Reports

Although assessments of an individual's social functioning are often based on the judgments of other people, self-reports by children and adolescents can be valuable sources of information as well. The greatest advantage of self-reports is that only the individual has complete access to his or her emotions and perspectives on behavior (Junttila, Voeten, Kaukiainen, & Vauras, 2006). Of course, the individual also has access to the entire range of social contexts in which he or she has been involved (Pakaslahti & Keltikangas-Jarvinen, 2000). However, social desirability pressures may lead individuals to evaluate themselves in overly positive ways, while minimizing their reports of negative behaviors and emotions (Junttila et al., 2006).

Use of Multiple Informants

Various researchers (e.g., Coie & Dodge, 1988; Junttila et al., 2006; Renk & Phares, 2004) have argued that social competence is best studied using multiple sources of information. Although different raters may provide different assessments of a child's social skills, these may all be valid perspectives on the child's social competence given that the raters observe the child in different contexts. For example, differences in parent and teacher ratings may be attributed to factors such as differences in expectations and behavioral norms within the home and school contexts (Junttila et al., 2006). In addition, differences in teacher and outside observer ratings seem to occur because observers tend to focus on the frequency of behavior, whereas teachers are more apt to make more qualitative judgments (Coie & Dodge, 1988). The decision regarding which informants to survey should be based on the settings in which the researcher or practitioner is most interested and the types of information he or she wants to collect (Renk & Phares, 2004).

Certainly of great interest is the degree to which cross-informant ratings are related to one another. Renk and Phares (2004) conducted a meta-analysis to examine the correspondence of cross-informants (i.e., peers, teachers, parents, self) in their ratings of children's and adolescents' social competence. They found that the correlation between peers' and teachers' assessments was significantly greater than between any other cross-informant pair. They attributed this result, at least in part, to the fact that peers and teachers observe students primarily in one context, the school. It is interesting to note, however, that Pakaslahti and Keltikangas-Jarvinen (2000) found in a study of adolescents that the consistency between peers' and teachers' ratings decreased from early to late adolescence. It may be that as adolescents get older, they increasingly distance themselves from teachers and parents who have fewer opportunities to observe them. Even peers may have fewer opportunities to observe as adolescents' social circles widen to include contexts such as jobs and romantic relationships.

Although the Renk and Phares (2004) meta-analysis revealed that cross-informant ratings between self-report and other informants had small effect sizes, the children's self-ratings were more strongly related to peer ratings than to ratings by adults. Junttila et al. (2006) likewise found that self-ratings most strongly correlated with peer ratings and suggested that as children interact with their peers, they learn certain behavioral norms. These norms may then guide children as they rate the behaviors of themselves and peers. Based on the results of their meta-analysis, Renk and Phares (2004) suggest that it may be beneficial to use reports of a peer or teacher but that the report of a parent, as well as a child's self-reports, would provide additional information about social competence, since these perspectives draw on information and experiences outside of the school context.

TECHNIQUES USED TO ASSESS SOCIAL COMPETENCE

There are a variety of techniques available for assessing the social competence of children and adolescents. These approaches include rating scales, observation in the natural environment, structured observation and analogue measures, interviews, self-reports, and sociometric assessments. Each of these techniques is described in this section. For each approach, example measures used to evaluate the social competence of preschoolers, elementary school-aged students, and adolescents are provided (see Chapters 16 and 17 for a comprehensive review of specific measures representing each technique). Finally, for each of these techniques developmental considerations are discussed (see Chapter 8 for a more thorough review of such factors).

Rating Scales

Rating scales are viewed as a very effective, time-efficient, first-line assessment technique for evaluating social skills (Merrell, 2001). In these scales, informants (e.g., parents, teachers, peers) are asked to rate various aspects of the child's behavior. The use of rating scales capitalizes on the judgments and observations of people who are very familiar with the child's behavior across time and contexts. These informants may also be able to provide data regarding low frequency but important behaviors that might not be seen by an outside observer. Numerous rating scale measures are available, and just a few examples will be described below (see Chapter 16).

The Social Skills Rating System (SSRS; Gresham & Elliott, 1990) is considered to be the most comprehensive rating scale instrument and is recommended for use based on its multisource approach, intervention applications, reliability, and validity (Demaray, Ruffalo, & Carlson, 1995). This rating system includes rating scales for teachers and parents, as well as a self-report form for students. Different forms are available based on the child's age (3–5 years, kindergarten to grade 6, and grades 7–12). The rating system assesses positive social behaviors on five subscales: Cooperation, Assertion, Responsibility, Empathy, and Self-Control. There are also three Problem Behaviors subscales: Externalizing, Internalizing, and Hyperactivity. The SSRS Student Questionnaire, which assesses only prosocial behaviors, is available in forms for elementary (grades 3–6) and for secondary (grades 7–12) school students. Respondents are asked to rate the frequency the child engages in various behaviors on a 0 (*never*), 1 (*sometimes*), or 2 (*very often*) scale, as well as to rate the importance of these behaviors for successful functioning on a 0 (*not important*), 1 (*important*), or 2 (*critical*) scale.

Two other rating scales used extensively by researchers and practitioners are the Behavioral Assessment System for Children (BASC-2; Reynolds & Kamphaus, 1992) and the Child Behavior Checklist (CBCL; Achenbach & Rescorla, 2001). These measures yield comprehensive assessments of children's behavior, although they do not provide very specific assessments of social behavior. In addition, like the SSRS, both the BASC-2 and the CBCL allow for standardized, parallel ratings by multiple informants facilitating comparison across raters. The BASC-2 is available in a form for preschool students (ages 2–5), children (ages 6–11) and adolescents (ages 12–21). Teacher and Parent forms of the BASC-2 are also available for children in preschool through high school. The measure yields four composite scores: Internalizing Problems (e.g., anxiety, depression), Externalizing Problems (e.g., aggression, conduct problems), Adaptive Skills (e.g., social skills, communication skills, leadership), and Behavioral Symptoms Index (which combines hyperactivity, aggression, anxiety, depression,

attention problems, and atypicality scales into a single factor). Respondents rate on a 4-point scale ranging from 1 (*never*) to 4 (*almost always*) the frequency with which the child engages in specific behaviors.

The CBCL is completed by parents to assess areas of competence and behavioral problems in children between the ages of 6 and 18 years. The CBCL yields profiles including six DSM-oriented scales, three competence scales, Total Competence, eight cross-informant syndromes, Internalizing, Externalizing, and Total Problems. One of the competence scales assesses social competence. Items on this scale include questions about children's participation in organizations, clubs, and teams; the number of close friends that he or she has and frequency of contacts with friends; and how well he or she gets along with siblings, parents, and peers. Parents rate their child on a 3-point scale ranging from 0 (*not at all true*) to 2 (*very true*). A parallel form, the Teacher Report Form (TRF), assesses teachers' perspectives on children's areas of competence and problem behaviors. In addition, the Youth Self Report (YSR) can be completed by children aged 11–18 years.

When using rating scales, certain developmental issues should be considered. Most rating scales are intended for a particular age group and include items that are ecologically valid for that group. For example, a measure of physical aggression for preschool children may include an item for which one is asked to rate the frequency that a child bites peers, but such an item would be inappropriate for adolescents. In addition, many measures (e.g., SSRS, CBCL) have norms available for specific age and gender groups based on national samples. Such normative data provide a basis for interpreting a child's ratings. For instance, a high rating on physically aggressive behavior would be considered more problematic for an adolescent girl than a preschool-aged boy, given that ratings of physical aggression tend to be higher and more normative for preschool samples than adolescent samples and for boys than girls (Coie & Dodge, 1997).

Observation in the Natural Environment

Although rating scales can efficiently provide very valuable and valid information about a child's social skills, it is frequently recommended that the use of rating scales is followed up with direct observations to aid in the identification of the actual target behaviors in need of remediation (Elliott, Malecki, & Demaray, 2001). Observations in the natural environment can provide important data about the overall quality of the child's responses to social situations (i.e., social performance, Cavell, 1990). Despite the value of observational data, there are a variety of drawbacks to this approach (Merrell, 2001). Most notably, observations can take a great deal of time as a child should be observed at several times and in a variety of settings to gain a valid assessment of that child's behavior. There is the possibility that observers may be biased, and observations may be unreliable, particularly if the behavioral coding scheme is not well defined. In addition, the child's behavior may be impacted by the presence of an observer.

Merrell (2001) asserts that the most appropriate settings for observation are those in which the child commonly interacts with peers. The school setting is often recommended, and it is suggested that observations take place especially during times when there is less structure (e.g., recess, lunch). Observations should be conducted by trained observers who objectively apply a behavioral coding system. One possible approach to observation is the use of event recording, in which the number of times a particular behavior occurs within the observation period is noted. Another approach is time-sampling recording, in which the observational period is divided into intervals, and specified behaviors that occur within that interval are recorded.

Various approaches to observing and coding children's social behavior in the natural environment have been used in studies of preschoolers (e.g., Mize & Ladd, 1990), elementary school-aged children (e.g., Asher & Gabriel, 1993; Dodge, Schlundt, Schocken, & Delugach, 1983), and adolescents (e.g., Jarrett & Duckett-Hedgebeth, 2003). In the vast majority of observational studies, the specific behaviors and settings that are targeted for observation are a direct function of the goals of the study, and thus the researchers devise their own observation scheme. For example, Mize and Ladd (1990) designed an intervention program that focused on the social skills of initiating interactions, behaving in supportive ways, asking questions, and making comments. Prior to the intervention, they observed children in the preschool classroom to identify those who were deficient in those particular skills and thus would be most likely to benefit from intervention. Frequently, observations are conducted in the natural environment to determine whether specific skills targeted for intervention have generalized to the child's everyday social interactions (e.g., Bierman, Miller, & Stabb, 1987; Mize & Ladd, 1990).

Though developing unique observational approaches for use in particular studies is the norm, several more standardized observational methods have extensive empirical support. For example, the Play Observation Scale (POS; Rubin, 1985) can be used to assess children's social adaptation and participation in naturalistic play situations. In addition, the Peer Interaction Recording System (PIRS; Hops, Todd, Garrett, & Stokes, 1975) can be employed to evaluate children's social interactions during free play. Both of these approaches are valuable for identifying children who are in need of social skills intervention and for assessing intervention outcome.

Strategies used for observing children in their natural environment vary as a function of children's developmental level. For preschool-aged children, it is appropriate to conduct observations in the classroom, given that social interaction tends to be a very common feature of the preschool setting. Since classroom activities become more structured in elementary school, it is more useful to observe these students' social interactions in unstructured school settings such as the playground or the lunchroom (Bierman, 2004). Attempts to observe adolescents' social behaviors in their natural environment are relatively rare, especially due to the nature of adolescents' social lives. Specifically, many of the social interactions of adolescents occur outside the purview of adults, and some behaviors are more subtle and difficult to observe (Inderbitzen, 1994). Furthermore, because adolescents tend to be more self-conscious, they are likely to be even more reactive than children to being observed (Inderbitzen 1994).

Structured Observations and Analogue Approaches

Given that behaviors of interest may sometimes be challenging to observe in the natural environment, some researchers use structured observations so that interactions can be more easily observed and recorded. Because certain types of social behavior (e.g., group entry, negotiation) may happen at a relatively low frequency, often researchers and practitioners will use role plays or create analogue situations that increase the chances, though do not guarantee, that the target behavior will occur. These situations may feature dyadic interaction (e.g., Piehler & Dishion, 2007) or group interaction (Englund, Levy, Hyson, & Sroufe, 2000) and, like observations in the natural environment, are valuable measures of social performance (Cavell, 1990). Staging these situations sometimes requires the participation of experimental confederates, and coding systems are used to classify the targeted behaviors. Since analogue tasks tend to focus on a single situation, they are valuable for conducting task analyses of the child's performance in a specific type of social situation (Foster, Inderbitzen, & Nangle, 1993).

To observe preschoolers' social interactions, an approach frequently used by Gottman and colleagues (e.g., Kramer & Gottman, 1992) is to have two friends play together in a room while an audiorecorder tapes their interactions. The dyad's behavior is then coded in terms of categories such as quality of play, episodes of fantasy play, intimacy, and conflict management. Similarly, Dishion and colleagues (e.g., Piehler & Dishion, 2007) have focused on the conversations of adolescent friendship dyads that occur in a laboratory setting and code these conversations for dyadic mutuality and deviant talk. Such structured observations have also been used by Dodge and colleagues (e.g., Dodge, 1983; Dodge, Coie, Pettit, & Price, 1990) with groups of elementary school-aged children. Dodge has brought together groups of unfamiliar children to participate in both structured and unstructured peer group interactions over several sessions. Then, the ways in which children's behaviors are related to their sociometric status in the new peer group are analyzed. To examine adolescents' social skills in a structured peer group setting, Englund et al. (2000) developed the Social Competence Scale as a global measure of social competence. In this procedure, students work in small, same-sex groups and are given the task of deciding how to spend $150. Then, they join with another group and once again have to work together to make a decision. Adolescents' level of competence in this task is rated on a 5-point scale.

Other approaches involve creating a situation that will likely produce the behavior of interest. For example, to assess elementary school-aged children's strategies for entering a peer group, Putallaz (1983) devised a group entry analogue task in which two confederates of the same gender and of about the same age as the participant play a game. The participant is sent into the room, and then that child's behaviors when attempting to join the ongoing interaction are coded. Dodge (1980) created a situation in which elementary school-aged boys experienced a frustrating negative outcome while trying to solve a puzzle (i.e., the puzzle was destroyed by a peer). The intent of the protagonist was depicted as benign, hostile, or ambiguous. Of interest was how boys would interpret and respond to the provocation. To measure adolescents' conversational skills, Erath, Flanagan, and Bierman (2007) used a talk show activity, in which the participant discussed information about the self with a "host."

When selecting tasks for children or adolescents to engage in, one should consider the social validity of the task for participants' developmental level, that is, the situations and tasks need to be chosen based on empirical evidence that they are actually important for peer functioning (Foster et al., 1993). Bierman and Welsh (2000) suggest that for preschool-aged children, playgroups and friendship observations are appropriate, but the use of socially challenging tasks may be less valid due to the verbal ability demands inherent in such tasks. During the grade school years, playgroup and friendship dyad observations continue to have concurrent and predictive validity, and socially challenging tasks are useful for assessing functioning with peers at this age. For adolescents, it is more appropriate that peer group and friendship dyad interactions consist of discussions that involve conversation, problem solving, and negotiation. Questions remain regarding whether children's behavior in analogue situations generalizes to their interactions in their natural environment. There is limited evidence suggesting some correspondence (Putallaz & Wasserman, 1989), and particularly with adolescents it seems reasonable to ask them if how they acted is representative of their real-life interactions (Inderbitzen, 1994).

Interviews

Interviews, in either a structured or unstructured format, can provide some valuable insights into children's behaviors. Interviews may be conducted with teachers, parents, peers, and the children themselves. Through interviews, situations that are particularly problematic

for children can be revealed, and a greater understanding of the antecedent and consequent conditions surrounding the target behavior can be obtained (Cavell, Meehan, & Fiala, 2003; Merrell, 2001). Interviews of peers can also provide some perspective on what kinds of behaviors and characteristics the peer group views as acceptable versus unacceptable and why they make the evaluations that they do (Bierman, 2004). Because the specific applications of interviewing as a method to assess children's social skills have not been well examined, Merrell (2001) argues that interviewing should be considered a secondary method for assessing social skills.

Many types of interviews of children are used to gain insight into their social information processing as they encounter specific types of social situations. For example, the Enactive Social Knowledge Interview (Mize & Ladd, 1988) asks preschool-aged children to use a puppet to act out what strategies they would use in response to six hypothetical challenging social situations. The Home Interview with Child (Valente, 1994) likewise presents children (kindergarten through third grade) with challenging social situations (i.e., ambiguous provocation, group entry) and asks participants to make attributions for why the situation happened and to report how they would respond. The Interpersonal Negotiation Strategies Interview (Schultz, Yeates, & Selman, 1988) is used to evaluate interpersonal strategies of children aged 8–17 years in response to several conflict scenarios. Peers may also be interviewed about a target child's social skills. For example, Bierman, Smoot, and Aumiller (1993) conducted semi-structured interviews, asking children questions such as, "What might some children like [not like] about [child's name]?" The Vineland Adaptive Behavior Scales-II (Sparrow, Cicchetti, & Balla, 2005) are used to measure adaptive behavior in four domains (Communication, Daily Living Skills, Socialization, and Motor Skills). The Vineland-II is available in three versions, including a Survey Interview Form, and this semi-structured interview may be administered to the target individual or someone who knows that individual well (e.g., parent, teacher). The starting point for each subdomain is based on the individual's chronological age, with the use of this interview appropriate for those from birth to age 90 years.

Regardless of the age of the individual being interviewed, the interviewer should be careful to present questions using language that is developmentally appropriate. In addition, especially in the case of young children, the child's level of attention must be considered and the length of the interview should be adjusted accordingly. To improve the young child's interest, the interviewer should attempt to make the task more engaging, such as using puppets to create an interview experience that is more interactive and appealing (e.g., Mize & Ladd, 1988). Because of the greater suggestibility of younger children, the interviewer should be careful about how questions are presented and should avoid "leading" questions. Adolescents tend to be more self-conscious and more aware of social desirability issues, and these concerns may impact their willingness to provide candid responses in an interview context.

Self-Report Measures

The use of self-report data from children and adolescents can make unique and significant contributions to understanding social functioning. Self-report measures provide direct access to a child's internal psychological states (e.g., loneliness, self-esteem, anxiety, depression). In addition, children are quite aware of the types of behavior in which they engage (Cavell et al., 2003; Inderbitzen, 1994). Nevertheless, there are some concerns about the value of self-report data, since they typically correspond weakly to behavioral assessments made by others (Renk & Phares, 2004). For example, research has shown that younger

children (Harter & Pike, 1984) and aggressive-rejected children (Zakriski & Coie, 1996) tend to make overly positive self-evaluations. Although self-report data may shed some additional light on children's social skills and concerns, Merrell (2001) suggests that these assessments should be used in conjunction with other measures, such as ratings by others and behavioral observations.

As noted in the Behavior Ratings section of this chapter, a widely used self-report measure is the SSRS Student Questionnaire (Gresham & Elliott, 1990), which is available in forms for elementary (grades 3–6) and secondary (grades 7–12) school students. Students are asked to rate how frequently they engage in various prosocial behaviors (e.g., "I listen to my friends when they talk about problems they are having.") on a 0 (*never*), 1 (*sometimes*), or 2 (*very often*) scale. The YSR (Achenbach & Rescorla, 2001) is used to assess social competence and behavior problems in children and adolescents, aged 11–18 years. Items are rated on a 3-point scale ranging from 0 (*not true*) to 2 (*often true*). The Matson Evaluation of Social Skills with Youngsters (MESSY; Matson, Rotatori, & Helsel, 1983) assesses both appropriate and inappropriate social skills and can be used with children and adolescents aged 4–18 years. The measure consists of five factors: appropriate social skills, inappropriate assertiveness, impulsive/recalcitrant, overconfident, and jealousy/withdrawal. The items are rated on a 5-point scale ranging from 1 (*not at all*) to 5 (*very much*).

Other measures focus on children's evaluations of their social adjustment. For example, the Loneliness and Social Dissatisfaction Questionnaire (Asher & Wheeler, 1985) assesses children's self-reports of their feelings of loneliness in school. Respondents rate how true each item is on a 1 (*that's not true at all about me*) to 5 (*that's always true about me*) scale. A version of this measure appropriate for use with younger children (preschool through first grade) is administered in an interview, using a 3-point response scale (Cassidy & Asher, 1992).

Children have also been asked to report their perceptions of competence in various domains. The Perceived Competence Scale for Children (Harter, 1982) asks children to rate their competence in five specific domains (i.e., scholastic competence, athletic competence, social acceptance, physical appearance, behavior conduct), as well as their global self-worth. A variation of this measure is the Adolescent Self-Perception Profile (Harter, 1988) that includes three additional domains (i.e., close friendship, romantic appeal, part-time job competence). A simpler version of this measure, the Pictorial Scale of Perceived Competence and Social Acceptance for Young Children (Harter & Pike, 1984) is appropriate for children from preschool through second grade. This measure assesses two domains, social acceptance and task/general competence, and pictures are used to assist in children's comprehension of the items. In all three versions of Harter's questionnaires, respondents are presented with two options, a negative perception (e.g., "Some kids find it hard to make friends.") and a positive perception (e.g., "Other kids find it's pretty easy to make friends."). They are instructed to select which option is more like them and then to rate whether that response is "sort of true for me" or "really true for me." Responses are converted into a 4-point scale, with higher numbers indicating more positive self-perceptions.

As mentioned regarding interview assessments, individuals administering self-report measures with children must ensure that the items are worded in a developmentally appropriate way and that the procedure is sensitive to the child's limited attention span. Self-reports from children younger than third grade typically need to be obtained from a one-on-one interaction with the assessor who interviews the child and may provide visual aids (e.g., a series of faces ranging from a large frown to a large smile) to assist the child in completing ratings. By about third grade, most students are capable of completing pencil and paper measures such as the SSRS (Gresham & Elliott, 1990) or the Loneliness and Social Dissatisfaction Questionnaire (Asher & Wheeler, 1985). Despite concerns regarding the validity of

self-report data, Inderbitzen (1994) has argued that self-report data obtained from adolescents may be more valid than evaluations of outside observers. Adolescents are unique observers of their own behavior and feelings as their cognitive, emotional, and social processing becomes more sophisticated. Moreover, as adolescents become more mobile and independent in their social interactions, adults have fewer opportunities to observe them, thus making the adolescents' perspective increasingly valuable.

Sociometric Assessments

Sociometric measures, which assess peers' feelings of liking toward a child, are often used as an index of a child's level of social adjustment. Sociometric measures do not assess children's social skills, though children's sociometric status does tend to be related to their behavior (see Newcomb, Bukowski, & Pattee, 1993, for a review). Sociometric assessments are valuable tools for researchers and practitioners because they provide information about the child's functioning in the peer group from the perspective of those with whom the child spends the majority of time interacting. Ultimately, it is peers who determine which behaviors and other characteristics (e.g., physical attributes) are liked or disliked by the group. Knowing how the peer group evaluates the child is critical, given that peer status is associated with various aspects of adjustment (e.g., loneliness, depression; Parker & Asher, 1987, see also Chapter 5). The primary goal of social skills training is to improve a child's behavior so that the child's status in the peer group will increase, and the child's risk for psychosocial difficulties will decrease. Notably, sociometric measures are frequently used to assess whether social skills interventions have been effective in improving a child's peer status.

Despite the utility of sociometric assessments, there are many challenges when employing this approach. Unfortunately, school staff may be unwilling to permit data collection during class time. Even for those schools that do allow access to their students, it can be very difficult to obtain parental consent. Some parents may simply overlook the request for consent, and other parents may be reluctant to have students evaluate (and be evaluated by) peers. Parents, teachers, and institutional review boards may pose questions about possible risks associated with children's participation in sociometric research. In response to these concerns, there is accumulating evidence that participation in sociometric assessments does not seem to have a negative impact on students' behaviors or feelings (see Iverson, Barton, and Iverson, 1997, for more information). When using any sociometric technique, it is certainly desirable to have as many students in the group as possible participating in the assessment. The fewer the students involved, the more compromised is the validity of the sociometric classifications (Crick & Ladd, 1989). Typically, data are not collected in classrooms in which the participation rate is less than 50% because of concerns that the data will not be valid.

The two types of sociometric assessment most often employed are the nomination technique and the rating scale technique (Bukowski & Hoza, 1989). In the nomination technique, peers are presented with a class roster and are asked to circle the names of the students that they like the most (positive nominations) and the students that they like the least (negative nominations). Commonly, children are limited to making up to three positive and three negative nominations, though some researchers allow unlimited nominations (e.g., Cillessen & Mayeux, 2004). Based on the numbers of positive and negative nominations received, children are classified into 1 of 5 sociometric categories: popular (many positive, few negative nominations), rejected (many negative, few positive nominations), neglected (few positive and few negative nominations), controversial (many positive and many negative nominations), and average (Coie, Dodge, & Coppotelli, 1982). For younger children, nominations

are frequently obtained by having children select the photographs of those they like most and like least (Cassidy & Asher, 1992).

In the rating scale technique, students are presented with a class roster and are asked to rate some aspect of interaction, such as how much they like to work with, play with (for children), or participate in activities with (for adolescents) each classmate. Ratings often are made on a 5-point scale (e.g., 1 = *not at all*; 5 = *a lot*). However, for younger children who may not understand the distinctions among the points on a 5-point scale, a 3-point scale is employed. Those assessing younger children tend to utilize visual aids, such as having photographs of individual students and asking children to indicate their liking for each peer by pointing to a rating scale that consists of faces ranging from a large frown to a neutral face to a large smile (Cassidy & Asher, 1992). Based on the average rating received, children are classified as low-, average-, or high-accepted. Although the rating scale approach does not allow one to distinguish among the various low status groups (i.e., rejected, neglected, controversial), it does yield more reliable data given that each child is rated by every other participant (Oden & Asher, 1977). In addition, compared to nominations, rating scales are more sensitive to detecting even subtle changes in a child's degree of liking by peers (Oden & Asher, 1977). For that reason, rating scales seem to be a good choice when one wants to assess the impact of social skills training.

Following intervention, even though a child may still not be nominated among peers' top three choices as a most liked student, a rating scale can reveal whether the peer group's liking of that student has increased. Rating scales may be effective in showing whether behavior changes following a social skills intervention contribute to increased acceptance by peers. A lack of change may indicate that the intervention was not effective, but it may also mean that peers have not yet had enough opportunity to interact with the child and observe the behavioral improvements (Foster et al., 1993). On the other hand, it is possible that children may be liked or disliked for reasons that have nothing to do with their behavior (e.g., physical appearance, ethnicity, intelligence, socioeconomic status). Reputational biases may also contribute to a lack of change in sociometric evaluations by peers (Hymel et al., 1990).

In addition to peer acceptance, involvement in friendship is an important index of social adjustment. Whereas peer acceptance is a unilateral construct based on the group's view of an individual, friendship is a bilateral construct that involves having a close, mutual, dyadic relationship that is characterized by reciprocity (Bukowski & Hoza, 1989). Notably, peer acceptance and friendship have been found to make unique contributions to various indices of adjustment, including self-esteem, loneliness, depression, and anxiety (see Erdley, Nangle, Newman, & Carpenter, 2001). Thus, it is important to assess not only peer acceptance but also participation in friendships. Sociometric measures may be used to determine whether children have friends, and if so, how many. For example, students may be asked to circle the names of their best friends on a class roster, and if two students mutually nominate one another then they are considered friends. Interestingly, Erdley, Nangle, and Gold (1998) identified within the friendship literature five operational definitions of friendship that use various combinations of data from nominations and rating scales to determine whether individuals are friends (e.g., one child nominates the other, and the two children rate each other as a four or higher).

Regardless of whether nominations or ratings are employed, the use of sociometric measures becomes more challenging when assessing students attending secondary schools. Unlike preschool and elementary school, in which students spend the majority of their day in one classroom with one set of peers, in middle and high school, students tend to change classes frequently and interact with many peers. Thus, it is unclear exactly who the students' classmates are. Some researchers who collect sociometric data from adolescents may present them with a list of grademates (e.g., Cillessen & Mayeux, 2004). Other researchers use the strategy of giving students a random list of grademates that may be more manageable (e.g., 25

grademates; Wentzel & Asher, 1995). Certainly, students may not be familiar with everyone in their grade, so they are given the option to indicate which students they do not know.

SPECIAL CONSIDERATIONS

Certain demographic variables need to be considered in assessments of children's social competence. For instance, Crombie (1988) argues that gender should be taken into account in both the assessment of social skills and the design of interventions. Especially during the childhood years, play tends to be sex-segregated and girls and boys likely experience quite different socialization. As a result, they acquire different skills, values, and goals. Boys tend to play in larger, more loosely organized groups, whereas girls tend to interact in smaller, more intimate groups (Eder & Hallinan, 1978). Consequently, group entry skills may be of greater importance to boys. In contrast, having the skills to make a new friend and to sustain a dyadic interaction may be more valuable to girls' social functioning. Furthermore, social conversation appears to be a larger component of social interaction for elementary school-aged girls than for boys (Ladd, 1983). Therefore, deficits in conversational skills may be more problematic for girls than boys. There are well-documented gender differences in aggressive behavior. Specifically, physical aggression is more normative for boys, whereas relational aggression is more normative for girls (Crick & Grotpeter, 1995). Notably, participation in overt versus relational forms of aggression is associated with different peer status outcomes for males versus females. For example, Cillessen and Mayeux (2004) found that across the adolescent years the negative correlation between overt aggression and peer acceptance decreases, especially for males, whereas the negative correlation between relational aggression and peer acceptance increases, particularly for females. Socially withdrawn behavior is more characteristic of girls, but when it is seen in boys it is more strongly predictive of low levels of peer acceptance (Morison & Masten, 1991). Given the numerous gender differences in children's behavior, many social skills assessments provide behavior norms by gender. Nevertheless, it is important to recognize that specific behaviors may have different functional significance in the social worlds of boys versus girls.

On the issue of race and ethnicity, it must be recognized that most norms regarding social skills have been developed based on White, middle-class, Western children. These norms are not necessarily applicable to other cultures or subgroups, yet typically the variance in behavior exhibited by minority group members is viewed as behavioral deficiencies or excesses (Feng & Cartledge, 1996). Indeed, there may be different standards for behavior in a given group of children (Cavell et al., 2003). Some behaviors may not be unusual or improper when compared to local norms (e.g., a young African American boy who engages in a lot of aggressive behavior in a classroom that has predominantly African American students). At present, little research attention has been given to the behaviors of socially competent students from racial or cultural minorities. Such information is critical for designing social skills intervention programs that meet the needs of children within a particular minority group (Feng & Cartledge, 1996).

Special considerations also need to be made in the assessment of the social skills of children with developmental disabilities (see Chapters 12 and 13 for more complete reviews). These children often have unique social impairments and challenges, and there is a great need for measures that can identify these skill deficits and guide effective social skills interventions for these groups (Bellini & Hopf, 2007). The Autism Social Skills Profile (ASSP; Bellini & Hopf, 2007) is a new assessment tool that provides a comprehensive measure of the social functioning of children and adolescents with autism spectrum disorders. Another

measure available for special populations is the Matson Evaluation of Social Skills for Individuals with Severe Retardation (MESSIER; Matson, LeBlanc, & Weinheimer, 1999). This measure is designed specifically for use with children and adults with severe and profound mental retardation and emphasizes nonverbal social behaviors. For those with learning disabilities that are less severe, one instrument available is the Social Skills Assessment for Learning Disabled Adolescents (Barrish, 1992). This measure was developed based on the daily life experiences of adolescents with LD and therefore represents the social challenges that these students face. Similarly, Yarris (1992) developed a social skills measure that consists of social situations typically encountered by adolescents with physical disabilities. Of course, those with disabilities are a heterogeneous group, so multiple methods (e.g., ratings, observations, sociometrics) should be used to assess their individual social abilities and deficits (Gresham & Elliott, 1989).

CONCLUDING COMMENTS

Assessing children's and adolescents' social competence is a complex task that may involve the evaluation of social skills, social performance, and social adjustment (Cavell, 1990). Researchers and practitioners often seek input from various informants (e.g., peers, parents, teachers) who can provide unique information and perspectives concerning the target child. Indeed, it is typically recommended that multiple informants be used to obtain a more complete picture of the child's competence across a range of contexts (Renk & Phares, 2004). A wide variety of techniques can be employed to assess competence, including rating scales, observations in unstructured and structured contexts, interviews, self-reports, and sociometric assessments. Each approach has certain strengths and challenges, and varies in the degree to which it assesses social skills versus social performance versus social adjustment. As such, the use of multiple techniques is frequently suggested in order to provide a more comprehensive understanding of the child's social functioning (Merrell, 2001). Particularly for practitioners, selected measures should also be high in clinical utility or applied usefulness. As seen in this review (as well as in Chapters 16 and 17), there are a whole host of quality measures available, but they vary in terms of their costs and feasibility. Finally, it is also vital that competence measures be interpreted with respect to the child's developmental level, gender, and ethnicity, as well as the possible presence of a developmental disability.

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Chapter 6
Assessing Adults

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ASSESSING ADULTS

In assessing the social skills of adults, many of the same factors in assessing social skills among children and adolescents will influence the resulting data. Issues such as single versus multiple prompts, standardized or individualized scenarios, and molar versus molecular ratings all impact the use and validity of social skills assessments with adults, adolescents, and children alike. However, the assessment of social skills in adults also holds some potential difficulties not typically seen when working with children and adolescents. In this chapter, particular methodological considerations in social skills assessment of adults will be covered. Major assessment methods, including clinical interviews, self-report, and observation, will be surveyed and particular method variations used with adults will be highlighted.

The primary difficulty in assessing adults relates to limitations in settings and methods of assessment that are feasible. Outside of inpatient institutional settings, in which the assessor has wide ranging freedom to observe and assess an individual, significant difficulties arise in conducting naturalistic observations of behavior that would be necessary to best evaluate social functioning. Reactivity effects may influence the extent to which observed behaviors are representative, while access and confidentiality issues may limit the settings in which behavior can be observed (e.g., in the workplace). Further, even with unfettered consent to surreptitiously observe a client across settings, few professionals would have the time or patience to engage in such guerilla style samplings of behavior. In addition, outside of hospitals or care facilities, confidentiality issues frequently limit the extent to which the clinician can obtain *others'* ratings of the individuals' social behavior. Occasionally, reports may be provided by spouses or family members, but clients may feel uncomfortable in consenting to

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having a mental health professional contact and query friends, acquaintances, coworkers, and the like.

The difficulty in obtaining actual samples of natural behavior, or data from others to corroborate client report, significantly limits the methods that can reasonably be used to assess social functioning in adults. Given these constraints, it is not surprising that self-report methods and observation of analogue (or role-played) social interactions are the most common approaches employed. However, it is typically useful to precede these assessments with a thorough clinical interview to better focus the remaining assessments.

CLINICAL INTERVIEW

Many practitioners and researchers often consider the clinical interview to be the gold standard in clinical assessment methods. Indeed, in this era of evidence-based assessments, many tests and tools are compared to the clinical interview, particularly structured clinical interviews, to establish the construct validity of the assessment tool. It is surprising, then, that no evidence-based structured or unstructured clinical interviews have been developed to examine social skills functioning. Indeed, in our review of the literature, we noted only one description of a clinical interview approach for assessing social skills. Meier and Hope (1998) provide a helpful outline of questions (Table 6.1) that can be asked during a clinical interview to assess the nature and magnitude of social skill deficits and assets, although they report no data to support the reliability or validity of this approach.

This series of clinical interview questions provides a fairly comprehensive assessment of multiple types of social situations and interactors. Further, it offers an exploration of the interviewee's motivations and goals for the interaction, as well as an overview of the antecedents and consequences of the interaction. Finally, the frequency of similar situations arising in daily life (item B-3-g) and rank ordering of situations by difficulty (item C) provides a clear framework from which to develop an individualized social skills training program.

Despite the apparent utility of this approach as an assessment method, one concern is that individuals with social skill deficits may not be aware of the presence or magnitude of their deficits. In many cases, the lack of awareness about one's own inappropriate behavior may be the root of the problem, and corrective information could remediate the problem. Conversely, as discussed in Chapter 11, socially anxious individuals typically overestimate the magnitude of their social performance difficulties. Self-ratings of social functioning are consistently rated as lower than observer-ratings among socially anxious individuals to the extent that observers frequently do not perceive or perceive only small performance differences between socially anxious and non-socially anxious individuals (Norton & Hope, 2001b). As a result, clinical interviews might provide biased results, in either direction, that could impact clinical judgments based on the assessment.

In addition to the limited availability of clinical interviews for assessing social skills, no conjoint or "others" interviews have been described in the literature. This is unfortunate since the collection of data from close or significant others could overcome some of the bias/awareness problems described earlier, as well as provide converging evidence regarding the nature and extent of any skill deficits. It appears, however, that many of the questions and areas described by Meier and Hope for interviewing clients could be rephrased to capture the same information from others.

Table 6.1. Outline of Social Skills Clinical Interview Questions from Meier and Hope (1998)

A. Obtain a history of social functioning from the client.
   Goal: To identify recurrent themes and problems.
   Ask about:
      1. The number of friends the client had in childhood, adolescence, and adulthood
      2. The nature and closeness of such friendships
      3. The client's dating history, most notably the number, frequency, and success of romantic relationships
      4. The client's involvement in social clubs or activities
B. Ask client to describe the kinds of social situations and relationships he or she finds difficult.
   Goal: To specify difficult social situations
      1. Be sure to cover the following situations if the client does not specify them:
         a. work or school
         b. at home
         c. public places
         d. recreational settings (parties, sports events, etc.)
         e. dating and sex-related situations
      2. For each situation described, ask the client to describe how he or she interacts with the following people of both the same and opposite sex
         a. friends
         b. bosses
         c. coworkers
         d. professionals (doctors, lawyers, etc.)
         e. service providers (sales people, restaurant staff, mail clerks, delivery persons, mechanics, landlords, etc.)
         f. spouse, boyfriend, or girlfriend
         g. in-laws
         h. children
         i. neighbors
      3. For each situation identified:
         a. Ask the client to describe what happened the last time he or she was in that situation. What did the client say? What did the client do? What did others say and do?
         b. Determine what happened immediately before the situation occurred
         c. Determine what happened immediate afterward
         d. Explore the client's motives in that particular situation. What was the client's goal?
         e. As the client to rate his or her performance on a 0 (extremely poor) to 100 (extremely good) scale
         f. Ask the client to describe what he or she may have done differently in that situation. If a client has difficulty with this question, ask how he or she would imagine a person with no social problems would behave in such situations
         g. Ask the client how often such situations arise in his or her daily life.
C. Ask the client to rank-order the identified situations in terms of their difficulty.
   Goal: To identify a starting point for assessment and/or treatment

Note: Reprinted with kind permission from Meier and Hope (1998, p. 11).

SELF-REPORT QUESTIONNAIRES

The use of self-report questionnaires in clinical assessment is becoming more and more prevalent in clinical practice due to their ease of use and generally strong psychometric characteristics. In fact, of the various types of social skills assessment methods, self-report questionnaires are the most commonly used (Segrin, 2000). Self-report questionnaires alone may not be able to completely explain/assess an individual's problems; however, in conjunction with other types of assessments (i.e. behavioral assessment and role-plays), a more complete picture of an individual can be ascertained (Meier & Hope, 1998). The majority of

social skill questionnaires focus on assertion skills (e.g., Rathus, 1973), while others focus on alternative socially related matters such as dating skills (e.g., Levenson & Gottman, 1978). Although the self-report measures assess different social targets, this diversity enables clinicians to acquire a more accurate assessment by utilizing different measures for different populations with different presenting problems (Meier & Hope, 1998).

The key advantage of self-report measures is their ease of use. By employing self-report questionnaires, little of the clinician's time is impacted (Meier & Hope, 1998). Clients for whom detailed assessment is warranted can be quickly ascertained by the administration of self-report questionnaires (Beck & Heimberg, 1983), thus relieving the clinician and client of extensive and unnecessary screening. Additionally, self-report measures allow for simple and consistent monitoring of ongoing change throughout treatment (Nelson, 1981).

Despite the advantages of social functioning self-report measures, they also hold a number of limitations that reduce their utility. First, and perhaps most importantly, it appears that many of the self-report measures of social skills were developed and normed based on unrepresentative samples. For example, one of the most well-known measures, the Rathus Assertiveness Scale (McCormick, 1984), was normed on 68 undergraduate students. Although one may occasionally question the caliber of social skills displayed by undergraduate students, norming based on students may undermine the validity of the instrument when used with more severely impaired individuals. Second, self-report instruments are susceptible to the same demand characteristics and biases as seen with clinical interviews (Meier & Hope, 1998). Lack of awareness of skill deficits, or overestimation of one's social difficulties, can easily bias self-reported data and, possibly, invalidate the results. Finally, given the level of difficulty and disability experienced by some clients, as well as individual background characteristics of others, the reading level, length, and complexity of some self-report measures may be an issue (Andrasik, Heimberg, Edlund, & Blankenburg, 1981). For example, the Wolpe-Lazarus Assertiveness Scale (WLAS) (Wolpe & Lazarus, 1966) was reported as being very difficult to administer to Americans, due to British language and terminology (Hersen, Kazdin, Bellack, & Turner, 1979). This affected the ease of the administration, requiring Hersen et al. to revise the WLAS in order for it to be applicable to Americans.

Although not necessarily a limitation of self-report social skill instruments, it is also important to note that a good number of the existing self-report measures were developed and validated during the mid-1980s. This raises the question of their applicability toward current standards of acceptable and skillful social behavior (also see Chapter 9: Diversity Considerations).

BEHAVIORAL OBSERVATION

Given the difficulties inherent in assessing social skills in adults through self- report questionnaires and interview, it is not surprising that the majority of assessment instruments include a behavioral observation component. Driven by the behavioral assessment movement of the 1970s and 1980s, behavioral observation was quickly seen at the gold standard for assessing social skills. Indeed, given that the construct being assessed (social skills) is the direct unit of measurement, it would appear that behavioral observation would be the optimal form of assessment. Unfortunately, the results have not always lived up to their promise.

In Vivo Observation

Ideally, behavioral observations would occur in varied settings within the client's natural environment (in vivo). For example, naturalistic observations could be conducted of

interactions at the client's home (e.g., with spouse, parents, children), place of employment (e.g., with colleagues, supervisor), and community (e.g., at a restaurant, gym). Employing myriad observations such as these would allow the therapist to thoroughly evaluate the client's social skills, as well as determine particular areas of strength/weakness and situational determinants. Nonetheless, it has long been acknowledged that this level of naturalistic observation is usually not achievable (e.g., Bellack, Hersen, & Turner, 1979), particularly for those in clinical practice. Clients may find the observer intrusive or may not wish to be observed. Issues of consent also apply, as the observer may need to seek informed consent from any individual involved in the observation who might find the interaction with the client distressing or uncomfortable. This, in turn, results in confidentiality concerns, as well as potentially alters the natural dynamic among those involved. Extensive naturalistic observations are also often time consuming and costly for both the client and therapist. For example, extra time would be needed to account for traveling to/from the observation, as well as awaiting an interaction to occur (e.g., waiting for the client's employer or colleague to enter into an interaction). Finally, the mere presence of an observer may result in behaviors different from those normally engaged in by the client (client reactivity). Thus, both ethical and practical issues involved in naturalistic observations limit their utility for clinicians.

Greater possibilities exist for the use of naturalistic observations within research or inpatient settings. To illustrate, Segrin (1998) used hidden video cameras to capture the natural interaction of participants in a research study while they were in a waiting room. They were later debriefed and given the choice of having their tape deleted. None of the individuals elected to have their tape deleted, thus allowing the researchers to view naturalistic interactions among the research participants. The representativeness of behavior in a formal waiting room to behavior in other situations, however, has not been established. Within an inpatient unit, there are also greater possibilities for observation of client behaviors. For example, while informal behavioral observations are often completed by various members of unit staff, Paul (1984) devised the Time Sample Behavior Checklist and the Staff-Resident Interaction Chronograph (TSBC/SRIC), an intensive (16 h per day), objective system for conducting assessments by technician-level observers. Manualized, computerized, and cost-effective (APA/CAPP, 2004), the TSBC/SRIC can be an efficient tool; however, use of such a comprehensive system is highly limited in terms of the settings in which it may be adopted.

Analogue Observation

Due to the difficulties inherent in conducting naturalistic observations of adult social behavior, researchers and clinicians frequently rely upon analogue methods (Haynes & O'Brien, 2000), primarily via observation of role-played social interactions. Typically, role-plays of social situations are prearranged by the clinician, and the client is instructed to behave as she/he typically would while interacting with another individual or group (e.g., get acquainted as if you were just introduced, ask for directions). The clinician, and sometimes those involved in the interaction, can then provide feedback to the client based on observations made during the interaction.

In conducting role-played or analogue social interactions, several issues need to be considered to determine the best suited assessment method. First, consideration must be given to the prompt format of the assessment instrument utilized. Single-prompt assessments (e.g., Simulated Social Interaction Test; Curran, 1982) provide description of a particular social situation and culminate with a single predetermined prompt delivered by a role-play partner (e.g., "I don't want to talk about it anymore. I'm leaving"). The client's response to this prompt is evaluated, typically on a Likert-type scale, in terms of the social skill being assessed

(e.g., assertiveness, criticism). Although appealing based on their brevity and potential ease of interpretation/evaluation, several problems are inherent in the single-prompt technique. The most notable among these appears to be that few "real-world" interactions are as simplistic as one prompt and one response. Rather, a given social encounter typically involves several prompts, statements, responses, and counterresponses as deemed necessary for the parties involved to fully express their viewpoint. Moreover, evidence from anecdotal (Bellack, 1983) and empirical (Kirchner, Kennedy, & Draguns, 1979) reports suggest that deficits in social behavior might not become apparent until after several exchanges. Thus, it is not surprising that the single-prompt design is often passed over in favor of the multiple interrelated prompts/responses format.

Based on the goal of the assessment, the clinician must also determine whether standardized or individualized role-plays should be employed. Standardized role-plays include detailed information on the established scenarios to be used (or procedures for creating individualized scenarios), role-play procedures, and scoring procedures, as well as facilitate comparisons to the performance of other people. In addition, several standardized role-play measures have been developed for use across populations (e.g., Assessment of Interpersonal Problem-Solving Scale, Donahoe et al., 1990; Behavioral Assertiveness Test-Revised, Eisler, Hersen, Miller, & Blanchard, 1975; Simulated Social Interaction Test, Curran, 1982; Social Skill Behavioral Assessment System, Caballo, & Buela, 1988). For example, 14 different videotaped interactions comprise the Assessment of Interpersonal Problem-Solving Skills (AIPSS; Donahoe et al., 1990), which analyzes client responses for the ability to identify an interpersonal problem, develop and describe a solution to the problem, and enact the solution. Further, the structure of this measure allows the assessor to diagnose the extent to which deficits are related to a lack of awareness of social problems, a lack of social skills, and/or problems with skill performance (see Chapter 18 for more detail on this measure). Use of published role-play assessments with standardized scenarios such as these allow comparison to normative data for certain clinical and nonclinical populations and are often supported by good psychometric data. Furthermore, they can be easily adopted for use as they are "ready-made" for the clinician or researcher and typically cover a variety of skills and situational domains. Nonetheless, these may also be considered disadvantages of the standardized role-plays, such that the scenarios included may not optimally assess situations or scenarios that are personally relevant or appropriate for a particular client, thus potentially resulting in insufficient or misleading data.

At the opposite end of the spectrum are individualized role-play scenarios, which are designed to more closely match a particular client's presenting concerns. Individualized role-play scenarios are collaboratively created by the clinician and client, and customarily include important personal and cultural aspects, such as sexual orientation, gender roles, social mores, and socioeconomic status. Constructing role-plays in this manner ensures that the assessment is relevant to the particular client's life circumstances and may increase their convergent validity (Chiauzzi, Heimberg, Becker, & Gansler, 1985; Torgrud & Holburn, 1992). However, constructing individualized role-play scenarios may require more effort and planning and does not allow for a comparative reference of the observed behaviors to established norms or other clients. Further, there appears to be limited information as to whether individualized role-plays contribute a significant additional improvement above and beyond data obtained with more standardized measures. Indeed, there is a paucity of research suggesting the equality or superiority of either individualized or standardized role-played observational assessment. Additional research is clearly warranted.

Given that standardized and individualized role-play scenarios each have advantages and disadvantages, seeking convergence from a combination of scenarios may be the best strategy. The Ideographic Role-Play Test (IRP; Kern, 1991) is an assessment of client assertiveness that

attempts to accomplish this. With the IRP, six general assertion situations (i.e., not wanting to lend an item that someone has asked to borrow; buying something that turns out not to to be unwanted; being requested to do something undesirable; receiving a solicitation to purchase an unwanted item; someone doing something that disturbs the participant; and wanting another to do something they promised to do previously) are presented to the client, who then generates extensive descriptions of six personal examples per situation. Appropriate situations/interactions are selected by the assessor and briefly role-played with an assistant or the assessor. As a result, the IRP maintains the necessary structure to support an evidence base but allows sufficient flexibility to maximize the personal relevance of the assessment. Observer ratings are completed regarding the assertiveness demonstrated in each interaction (ranging from total assertion to total submissiveness/aggressiveness), and these scores are summed within each of the six domains, as well as across the domains for a total assertiveness score. The IRP represents a compromise between standardized role-plays wherein interactions may or may not represent situations experienced by participants and individualized role-plays designed specifically for use with certain clients.

After identifying the format of the role-played assessment, the clinician must also determine the desired level of detail desired in the assessment ratings. Molar ratings are global assessments of an overall skill domain (e.g., assertiveness, social skillfulness, etc.) and may be as simple as a single numerical rating of overall social skill from low to high. Conversely, molar ratings may encapsulate assessments of various social processes such as the ability to decode a social problem, identify a potential solution, and skillfully enact that solution. Although molar ratings are presumed to represent an overall rating based on all of the observed behavioral indicators, evidence suggests that even these are predominantly based on verbal content and gaze (Bellack, 1983; Conger & Farrell, 1981; Galassi et al., 1976; Romano & Bellack, 1980; Trower, 1980). These findings suggest that molar ratings of an individual with significant deficits in other behaviors, such as nonverbal gestures, verbal volume, and intonation, may be invalidly rated by observers as skilled. Consequently, operational definitions of these indicators should be provided to the rater in order to ensure comprehensive molar ratings.

Molecular ratings, on the other hand, examine specific behaviors that may or may not occur within the social interaction (e.g., eye contact, volume of verbal responses, posture, etc.). For example, Segrin (2000) provides elaborate descriptions for a variety of behavioral indicators for social skills assessments, including speech content, paralinguistic behaviors, facial expressions, gaze, posture, and gestures. Several approaches to molecular ratings have been utilized, from specific measurements of the frequency, intensity, or duration of specific behaviors to observer ratings of their overall appropriateness or effectiveness of those behavioral indicators. While measurements of the behavior may provide more objective data, ratings may be more effective at equating unskilled behaviors that can occur at either extreme of a spectrum (e.g., whispering vs. yelling, lack of eye-contact vs. intense staring; see Bellack 1983). Typically, molecular ratings require greater training than do molar ratings and require detailed specification of the particular behavioral indicators to be evaluated, but they also provide several advantages over molar ratings. First, ratings or measurements or specific behaviors tend to be more objective that global overall impression ratings. In addition, molecular ratings may be more helpful for clinicians in identifying problem areas or targets for intervention. Even so, some have questioned whether the sum of the molecular behaviors is equal to the whole of the social performance (Conger & Conger, 1986).

Another matter for consideration when designing analogue observation methods concerns the use of confederates or interaction partners. Within research settings, these issues are often avoided by selecting confederates from trained research assistants (e.g., Alden & Bieling, 1998; Bellack, Hersen, & Turner, 1979) or other study or group therapy participants

(e.g., Bellack, Hersen, & Lamparski, 1979; Kelly, St. Lawrence, & Brasfield, 1991). However, not all clinicians, particularly those in private practice, have access to individuals willing or able (e.g., due to confidentiality issues) to serve as confederates. In some cases, clerical or administrative staff could serve this role, although many of these staff would already be familiar to the clients from front desk interactions. Oftentimes, additional time and expenses would also be required for the training and compensation of the confederates who assist with the role-played interaction. To address these concerns, some have had the therapist "switch hats" and serve as the role-play partner (e.g., Hope & Heimberg, 1993; Hope, Heimberg, Juster, & Turk, 2000). However, it is possible that this approach results in other negative implications for the assessment outcome (e.g., greater client reactivity) or therapeutic relationship (e.g., client-therapist conflict). In addition to these issues, clinicians must consider how broad (e.g., gender, race) and specific (e.g., physical attractiveness, tone of voice) personal characteristics of the role-play partner may influence the assessment (Torgrud & Holborn, 1992).

As an alternative, videotaped assessments (e.g., the AIPSS) can be utilized in place of employing role-play confederates. While this would eliminate some of the previously described difficulties (e.g., the need for a confederate, confederate characteristics skewing client behavior, therapist-client role conflicts), other issues remain. For example, the influence of personal characteristics of those on the videotape would still require recognition. Furthermore, additional problems emerge with videotaped assessment strategies, such as the similarity of the videotaped situations to the client's presenting problems and the cost to purchase and maintain the video equipment. Each of these issues should be carefully weighed by the clinician in order to select the most appropriate assessment method. In all, it may be that an ideal assessment would include multiple role-plays with different confederates, videotaped or live, particularly given that behavior may not generalize across role-play partners.

Training in the use of complex scoring procedures results in increased expenses and time. For example, the complex ratings and scoring of the AIPSS require extensive training to ensure comprehension and accuracy. In addition, clinicians must determine whether to employ outside observers or complete the observations themselves. As with the use of confederates, this issue is often avoided in research settings by training research assistants to complete the ratings (e.g., from behind a one-way mirror). However, those in clinical practice encounter similar practical (e.g., costs) and ethical (e.g., confidentiality) difficulties as described above. In these cases, videotaping of sessions with later coding by the clinician could be used as an alternative to employing live observers. However, use of video equipment can result in additional problems. The introduction of videotape equipment into a session would likely disturb the flow of session and increase client socio-evaluative concerns. In addition, viewing and assessing of videotaped sessions may make it difficult to detect subtle nuances in the client's behavior, particularly for molecular ratings. Finally, the clinician needs to weigh the costs of purchasing and maintaining video equipment, employing a trained rater, and the possibility of equipment malfunctions, with the expected duration and frequency of use in conducting social skills evaluations.

After selecting the format of the role-played assessment, the molar or molecular form of the desired assessment data, and whether to use live confederates or videotape, the clinician must also consider a number of additional issues prior to initiating observation of an analogue role-played assessment. While several of these have been highlighted as problems encountered with naturalistic observations (i.e., reactivity to an observer's presence, time, expense), each could also apply to analogue role-plays. However, one additional issue deserves mention. That is, several researchers have noted that the manner and detail with which instructions are given can serve as a demand characteristic and influence behavioral outcomes (e.g., Higgins, Frisch, & Smith, 1983; Meier & Hope, 1998; Norton & Hope, 2001a; Segrin, 1998). To illustrate, better performance has been associated with more

specific instructions, such as "act as you believe a very assertive person would act," than with more general instructions, such as "act as you normally do" (Nelson, Hayes, Felton, & Jarrett, 1985; Nietzel & Bernstein, 1976). Thus, the type of instructions given should vary depending on the purpose of the evaluation. For assessments of individuals who have known difficulties with social skills (e.g., an inpatient with schizophrenia) or to test the upper performance limit of an individual, high demand instructions would seem most appropriate (Norton & Hope, 2001a; Segrin, 1998). Alternatively, "act as you normally do" instructions could be used for evaluation of current skill levels. Further, a sequential combination of these two instruction types could be used to identify discrepancies between performance and capability (Norton & Hope, 2001a).

It is therefore necessary to consider a number of issues to ensure selection of the most appropriate observational method. As naturalistic observations are frequently not an option, it is more likely that clinicians will need to weigh the relative advantages/disadvantages of various analogue assessment approaches. For example, the AIPSS does not require confederates but includes complex scoring, while the IRP has more simple scoring procedures but serves solely as a measure of assertiveness rather than of varied social skills. In addition, it is important to remain cognizant of individual and group differences (e.g., those involving gender or cultural variations) when determining appropriate social behaviors (see Chapter 9). Furthermore, it is remarkable that the majority of research studies within this area were conducted more than two decades ago with limited changes or advancements since that time. While it is unlikely that the basic findings would be significantly different, it is possible that technology advances would allow for more fine-tuned assessment procedures, devices, and scoring systems.

Finally, one of the most important questions to address with analogue assessments concerns their validity, that is, "Does the behavior exhibited during role-plays correspond to behavior observed in more naturalistic situations?" (Norton & Hope, 2001a, p. 71). Within clinical settings, correspondence between analogue and naturalistic observation ratings has been variable. For example, Curran (1982) noted good correspondence of skill ratings obtained from male psychiatric patients during role-played interactions and unobtrusive naturalistic observations. However, Monti, Corriveau, and Curran (1982) found low agreement when comparing in vivo ratings made by hospital staff with role-played test results. Likewise, Bellack et al. (1979) reported mixed concordance findings, ranging from poor (i.e., smiles, praise, number of requests, overall ratings of assertiveness) to moderate (i.e., speech latency, eye contact, compliance) for molecular ratings made of role-played and naturalistic interactions with psychiatric patients. Results from research studies with nonclinical samples have been more favorable. For example, several studies have reported moderate to excellent correspondence of measures of social skill obtained from nonclinical samples in role-play and in vivo interactions (Bellack, Morrison, Mueser, Wade, & Sayers, 1990; Kern, 1991; Merluzzi & Biever, 1987; St. Lawrence, Kirksey, & Moore, 1983; Wessberg, Marriotto, Conger, Farrell, & Conger, 1979). St. Lawrence et al. (1983) compared the behavior of female college students in assertion-eliciting interactions and concluded that "subjects' behavior was consistent whether they role-played the situation or believed it was actually occurring" (p. 32). However, others have reported a lack of congruence between role-played and in vivo interactions (Frisch & Higgins, 1986; Gorecki, Dickson, Anderson, & Jones, 1981). For instance, Gorecki et al. (1981) found that college students' assertiveness ratings were significantly higher during role-played, as compared with in vivo, interactions. Likewise, Frisch and Higgins (1986) compared three different role-play conditions with an in vivo condition and found that participants from the role-play conditions engaged in more assertive responses than those in the in vivo condition.

Further examining these issues, Segrin (1998) explored differences among an in vivo condition (i.e., "waiting period") and two traditional analogue conditions (i.e., "get acquainted" and "role-play"). During the "waiting period," two participants' interactions were secretly videotaped while they awaited a third participant. As previously noted, participants were debriefed following completion of the interaction, with none electing to have the videotape deleted. While there were no group differences noted for self-reported trait-like social skills, reports for state-like social behaviors were influenced by group wherein state ratings were rated consistently lower and more variable for participants in the in vivo condition. These findings are generally consistent with prior reports of the tendency for behaviors in role-played scenarios to be superior to that observed in vivo and the recommendation that clinicians be cognizant that data obtained solely from role-played observations may be an overestimate of actual functioning (Norton & Hope, 2001a).

CONCLUSIONS

For assessing the social skills of adults, a variety of useful self-report and analogue observational methods have been developed and empirically evaluated. The range of structured and unstructured, as well as standardized and ideographic, observational schemes affords the clinician assessment tools to meet most clinical situations. Clinical interview methods also appear promising, although they have not been subjected to psychometric evaluation. Despite this, concerns about the validity of social skill assessment methods exist. Several studies have shown poor congruence between naturalistically observed behavior and behavior displayed in analogue interactions. Instructions, client characteristics, role-play partner characteristics, observer training, and the specific role-played scenarios, can all have impacts on the resulting data. Self-report and clinical interviews are likewise subject to sources of considerable error including, but certainly not limited to, client unawareness of their skill deficits, socially anxious perceptions of skill deficits, impression management, floor and ceiling effects, and reading level or comprehension difficulties. Given these limitations, a comprehensive multi-modal assessment strategy is strongly recommended. Standard self-report questionnaires could be administered as a screen, with clinical interview, behavioral observation, and additional self-report questionnaires being administered if the screening or clinical intuition suggests potential skill problems.

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Chapter 7
Social Skills Interventions

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SOCIAL SKILLS INTERVENTIONS

The term "social skills" encompasses an array of learned behaviors that share the common goal of maintaining or increasing reinforcement within a social context. Deficits in social skills can occur at any developmental period and are not likely to improve spontaneously because impaired social skills impede interactions with other people. In turn, unsatisfying or disruptive interactions exacerbate social skill deficits by preventing the refinement of existing skills and limiting the acquisition of new ones (Hansen, Giacoletti, & Nangle, 1995; Kelly, 1982). Given the importance of functioning effectively within a social context, the amelioration of social skills deficits is sometimes an independent treatment goal. More often, the improvement of social skills is one component of the treatment plan for a variety of psychological disorders (see Campbell, Hansen, & Nangle, this volume).

Social skills training (SST) is a therapeutic intervention based on the application of behavioral and social learning theory and techniques. Interventions may target an assortment of skills and address a range of deficits. There is variation in both the clinical populations served and the problem constellations that respond to effective SST. Because of the broad scope of behaviors that fall into the category of social skills and the equally diverse range of populations and presenting problems associated with skills deficits, SST is applicable in virtually every clinical setting, either as a primary intervention or as part of a treatment package.

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In this chapter, we provide a brief overview of the general components of most social skills interventions, consider treatment issues, including generalization and social validity, and then discuss the application of SST to commonly targeted skill deficits in the areas of communication, assertiveness, relationship building, and social problem solving. Finally, we look at specific issues for selected developmental and clinical populations: children and adolescents in general, children with emotional and behavioral disorders, youth experiencing social isolation/rejection, and clients with developmental disabilities, social anxiety, and severe mental illness.

OVERVIEW OF INTERVENTIONS

Merrell and Gimpel (1998) distinguished between social skill acquisition, by which a particular skill is learned, and skill performance, in which a learned skill is demonstrated under specific conditions. For typically developing individuals, social skills are learned in naturalistic settings through operant conditioning and social learning mechanisms (see Nangle, Erdley, Adrian, & Fales, this volume). Deficits reflect either an acquisition failure or an inability to produce a learned skill appropriately (Elliott, Gresham, & Heffer, 1987; Matson & Ollendick, 1988). Therefore, social skills interventions are based on an analysis of both the acquisition and performance processes.

Environmental factors strongly influence whether an individual performs a social skill. Thus, the failure to behave in a socially skilled manner may reflect not so much the absence of an identified skill as it does situational characteristics that are not conducive to the production of that skill for a particular individual in a specific time and place (e.g., the skill or behavior may not be naturally reinforced). Similarly, situational factors may affect the quality of performance. For example, individuals who function quite well socially in certain circumstances may not do so in other environments. A central premise of SST is that individuals who fail to acquire or perform certain social skills naturally, regardless of the reason, will be able to learn these skills via similar mechanisms in a contrived setting. Thus, behavioral techniques based on operant conditioning and social learning theories are employed in most social skills interventions.

Core Skills Training Components

In social skills interventions, a thorough assessment defines the specific deficits that need improvement. Once the target skill(s) has been identified, it must be broken down into its behavioral components and operationally defined. One principle of SST is that individuals can learn a skill in its entirety by learning each of its component parts. These components are taught individually, building from one session to the next, in a systematic fashion using core therapeutic techniques: instruction, modeling, rehearsal, feedback, and reinforcement (Christopher, Nangle, & Hansen, 1993).

Instruction and rationale. The first step in training a new social skill is to clearly define, describe, and provide examples of the targeted behavioral components. In addition, a rationale for using the skill should either be elicited from the client or provided to help the client understand both the function the skill serves and the benefits of using it (Bourke & Van Hasselt, 2001).

Modeling. After providing instruction and rationale for the targeted behavioral component or skill, a model of that skill is provided. Modeling gives clients the opportunity to

observe the appropriate production of the targeted behavior and, ideally, the potential positive outcomes associated with its effective use. Models can be in vivo (i.e., live) or videotaped. Video modeling has some advantages because the same interaction can be replayed numerous times, and the clinician is free to pause the video to comment about specific aspects of the model's performance (Kelly, 1982). Additionally, video modeling can be more highly controlled than live modeling, ensuring that the skill being modeled is clearly observable and correct. Distracting stimuli in the environment also can be removed to promote attention to the modeled behavior, which is necessary for learning to occur (Bellini & Akullian, 2007). In contrast, the flexibility provided by in vivo modeling has advantages that video modeling lacks. For instance, live models can respond to unexpected elements of a situation and can demonstrate a broader range of appropriate responses than recorded models (Elliott & Gresham, 1993).

Whether the clinician chooses video or live models, it is important to consider the characteristics of the model because these characteristics can impact the degree of imitation that takes place. In general, clients are more likely to imitate the behaviors of individuals who are similar to themselves, or whom the clients perceive as similar, than the behaviors of others with whom they have less in common (cf. Bandura, 1977; Kazdin, 2001). For instance, clients are more likely to imitate behavior displayed by individuals similar in age to themselves, a phenomenon particularly seen with youth (Kelly, 1982). Gender and the likeability of the model have also been found to impact the imitation of models (Bandura, 1977; Kazdin, 1977).

Rehearsal. Active participation in practice exercises during and outside of session is one of the fundamental differences between behavioral interventions and insight-oriented psychotherapies, and it is one of the most important elements of social skills interventions (Kelly, 1982). By allowing clients to take an active role in the skill acquisition process, rehearsal facilitates skill retention and encourages better performance than simply offering information or demonstration of skills (Elliott & Gresham, 1993). Ladd and Mize (1983) identified three categories of rehearsal: verbal, covert, and overt. These researchers noted that verbal and covert (thoughtful or imaginative) rehearsals are used to improve encoding, retention, and retrieval of skill information. For example, verbalization is a rehearsal strategy in which clients informally practice only the verbal components of the targeted behavior (e.g., the client comes up with 10 questions she could ask a conversation partner to sustain the conversation). According to Ladd and Mize (1983), overt forms of rehearsal (performing a skill) allow a person to establish and refine motor elements of the skill. Specific forms of overt rehearsal include role-plays, semi-structured practice, and unstructured practice (Elliott & Gresham, 1993; Kelly, 1982). The forms of rehearsal vary in level of structure and in authenticity. Role-plays tend to be highly structured interactions in which a particular scenario is described as background for the interaction; then, the clinician or role-play partner behaves in a way designed to elicit the targeted response from the client. Role-plays have several advantages, especially when a skill is first being trained. They are particularly useful for behaviors that occur infrequently in the naturalistic setting, and they allow exposure to multiple trials over a short amount of time (Matson, Sevin, & Box, 1995). Matson et al. (1995) cautioned, however, that role-plays also have distinct disadvantages, most notably problems with generalization and social validity.

Ladd and Mize (1983) advised using a "graduated series of rehearsal contexts" (p. 68) to help clients move from relatively risk-free role-plays to closer approximations of real-life situations that have greater socially validity and are likely to foster generalization. Semi-structured practice is an intermediate step that alleviates some of the artificiality of the role-play experience by having the role-play partner portray general characteristics to which the client responds rather than following a scripted procedure. When a set of skills has been

mastered in the therapy setting, unstructured practice interactions are indicated. In this case, the client enters naturalistic situations with peers who have received no or minimal instruction, and the client practices the newly acquired skill (e.g., free play situation with children or a conversational setting for adults).

Feedback and reinforcement. Although practice is a critical aspect of SST, it typically is not sufficient for the successful acquisition of a new skill. During independent practice, clients may produce the skill incorrectly, or they may fail to experience an immediate benefit after using the skill, either due to their own continuing skill deficits or the situational context of the practice. Feedback and reinforcement are designed to shape, refine, and ensure the subsequent use of new social skills.

Feedback is used to provide clients with information regarding their performance in comparison to a standard (Elliott & Gresham, 1993). Specifically, Ladd and Mize (1983) distinguished between evaluative feedback that simply communicates the need to modify performance and informative feedback that specifies ways to improve. Either type of feedback can be offered in several ways. For example, the clinician can provide feedback directly to the client, or peers can critique each other during group interventions. Clients may also view videotapes of themselves, allowing them to evaluate their own performance (Rapee & Hayman, 1996). Regardless of format or who delivers it, feedback is most effective when it occurs immediately after the performance being critiqued, is specific and concrete, emphasizes the positive aspects of the performance, and provides constructive information to enhance future performances (Kazdin, 2001; Kelly, 1982).

Reinforcement involves the presentation or removal of stimuli that increase the likelihood that the skill will be used in the future (Elliott & Gresham, 1993). Nearly all studies of contingency management and social skills have demonstrated the role of reinforcement in increasing social behaviors (Matson et al., 1995), and it is well accepted that newly learned behaviors and skills become more readily engrained when they are reinforced consistently (Kazdin, 2001). Consistent reinforcement, however, may not occur spontaneously in an individual's natural environment. Because clients are unlikely to continue using a particular skill if it is not reinforced, clinicians must implement contingent reinforcement, including praise and material rewards, in the treatment setting. In most settings, the clinician must also aid the client and/or significant others, such as parents, teachers, and staff/caregivers, in delivering reinforcement because clinicians are rarely available to clients during all practice opportunities.

Service Delivery Issues

Social skills interventions can be delivered in either group or individual formats, and treatment intensity and duration can vary widely. Although service delivery choices may affect the outcome of treatment, there is limited guidance in the research literature on preferred characteristics. In the absence of such direction, clinicians typically consider client, clinician, and setting factors. For example, the nature and severity of skill deficits, client age, and developmental characteristics may inform choices about treatment intensity and delivery modality. Clinician training, clinical versus community setting, and available resources are equally likely to influence such choices.

In making a choice between group and individual interventions, clinicians must weigh competing arguments for each format. Some advantages of group interventions stem from the presence of readily available peers and the inherent social context provided by the group setting. In a group setting, the treatment session itself becomes a social interaction in which structured and unstructured practice of newly acquired social skills can occur (Hansen,

Nangle, & Meyer, 1998). In addition, other group members can serve as models for appropriate social skills and as practice partners for behavioral rehearsals. The group format may also provide the opportunity for exposure to a wider range of stimuli and responses than a clinician alone could, which may facilitate the generalization of newly trained social skills (Hansen et al., 1998).

While there are numerous potential benefits of a group format, there are drawbacks, too. For example, group treatments are maximally effective when group members have similar skills deficits to similar degrees of severity (Kelly, 1982). Given the variability in social skills deficits and individual levels of functioning, clinicians may have a difficult time finding participants who are similar enough to require the same skills training presented at the same rate. The group format presents greater challenges in determining each group member's response to treatment as well (Christopher et al., 1993). Although it sacrifices the inherent social interaction and generalization advantages of a group, individual treatment allows clinicians to tailor interventions specifically to the client's difficulties, monitor progress closely, adjust treatment efforts accordingly, and move through treatment at a rate regulated by the individual's progress.

Composition of a group, selection of peers for peer mediation (which will be briefly discussed later in this chapter), or choice of role-play partners requires consideration of similarities and differences between partners and an assessment of the skill strengths and deficits of each person. As previously mentioned, people tend to imitate the behavior of likeable others who are similar to themselves in terms of age and gender. Thus, groups in which members are similar in age, gender, and degree of social skill impairment have a better opportunity to use group member modeling effectively than groups composed of highly dissimilar individuals. On the other hand, group members with different characteristics offer benefits in a number of situations, such as dating role-plays. Frankel and Myatt (2003) cautioned, however, that it is important to have adequate representation for dissimilar group members. For instance, in children's peer groups it can be counterproductive to have a single girl or single boy member. A final consideration for optimal group composition is the potential iatrogenic effect resulting from negative peer influences during group treatments. In some cases, group members can model and reinforce antisocial behaviors leading to increases in deviancy and other undesired behaviors (Poulin, Dishion, & Burraston, 2001).

The amount of time needed to facilitate the acquisition and generalization of social skills varies widely. Individual characteristics such as developmental level, cognitive functioning, and nature and severity of skills deficits are important, but environmental factors such as natural reinforcement and opportunities for practice outside of treatment session also influence the time needed to treat social skills problems effectively. Clinicians must consider several factors related to treatment intensity and duration including length, number, and frequency of sessions. A survey of the literature yields no consensus with regard to any of these factors. While many SST sessions last 45–60 min (e.g., Barkley, Edwards, Laneri, Fletcher, & Metevia, 2001; Plienis et al., 1987), some are as brief as 20 min (e.g., Holmes, Hansen, & St. Lawrence, 1984) or as long as 90 (e.g., Ozonoff & Miller, 1995). Many SST programs, particularly group treatments, last approximately 12–16 weeks (e.g., Ozonoff & Miller, 1995; Spence, Donovan, & Brechman-Toussaint, 2000), although briefer interventions are represented in the literature as well (e.g., Alvarez, Cotler, & Jason, 1984). In contrast, some have advocated that SST should last much longer than just a few months to maximize treatment effects (e.g., Bullis, Walker, & Sprague, 2001). Regarding frequency of sessions, most interventions appear to hold sessions once (e.g., Lochman & Curry, 1986; Ozonoff & Miller, 1995) or twice per week (e.g., Barkley et al., 2001; Hansen, St. Lawrence, & Christoff, 1985), and some include monthly booster sessions as part of the intervention (e.g., Schilling, El-Bassel, Hadden, & Gilbert, 1995). Many of the studies referenced above have

demonstrated improvements following completion of the intervention under investigation, but none of them (or any other research, to our knowledge) has examined the effects of length of treatment on outcomes. The lack of firm guidelines regarding treatment frequency or duration underscores the importance of ongoing assessment to determine goal achievement for individual clients.

Commonly Targeted Skills for Intervention

Any number of social skills can be improved through these training approaches, but the most commonly targeted are communication, assertiveness, relationship building, and social problem solving. Each type of skill is trained using the general techniques described above and can be adapted for a range of populations and presenting problems.

Communication skills training. Effective communication skills are the cornerstone of most appropriate and reinforcing social interactions and are a necessary component of virtually all social skills interventions. Many different types of social skills interventions could be characterized as communication enhancing (e.g., assertiveness, date initiation, conflict resolution), with conversation skills playing an integral part in most forms of communication training. Conversation skills are those necessary to initiate and maintain mutually reinforcing dialogues between two (or more) people and for developing and maintaining close interpersonal relationships (Holmes et al., 1984; Kelly, 1982). Other important life events such as obtaining employment and getting assistance from others when necessary also are contingent upon appropriate conversation skills (Holmes et al., 1984). The specific behavioral components typically associated with conversation skills include eye contact, affect, facial expressions, speech duration, nonverbal and verbal attending, choosing conversation topics likely to be of interest to others, asking appropriate questions to elicit information, making appropriate self-disclosure statements, and giving compliments or otherwise reinforcing the conversation partner (Hansen, St. Lawrence, & Christoff, 1989; Kelly, 1982; Plienis et al., 1987). Communication training has led to favorable outcomes for diverse client groups, including individuals with autism (e.g., Plienis et al., 1987), social anxiety (e.g., Spence et al., 2000), communication difficulties or language impairments (e.g., Godfrey, Pring, & Gascoigne, 2005), schizophrenia (e.g., Nilsson, Grawe, Levander, & Lovaas, 1998); couples (e.g., Butler & Wampler, 1999); and hospitalized psychiatric youth (e.g., Hansen, St. Lawrence et al., 1989).

Assertiveness training. Assertion, a specific type of communication, can be defined as "the ability of an individual to effectively, and without discomfort, convey personal positions, opinions, beliefs, or feelings to another person" (Kelly, 1982, p. 172). These skills differ from other types of social skills in that assertion is primarily aimed at preventing the loss of, rather than gaining, reinforcement. Assertiveness training has been used with some success, either alone or as one component of a broader treatment protocol, to address interpersonal difficulties associated with a wide variety of problems, including anxiety (e.g., Albano, Matern, Holt, Heimberg, & Barlow, 1995), anger (e.g., Deffenbacher, Story, Stark, Hogg, & Brandon, 1987), substance use (e.g., Pfost, Stevens, Parker, & McGowan, 1992), schizophrenia (e.g., Dilk & Bond, 1996), and risky sexual behavior (e.g., Tulloch, McCaul, Miltenberger, & Smyth, 2004).

Relationship building. Interpersonal relationships are reinforcing to most people, and the development of platonic or romantic relationships is often the ultimate goal of social skills and other psychological interventions. Relationship building skills such as prosocial play and conversational skills, when produced and used successfully by an individual, enhance the reinforcement that others receive from interacting with that individual, which increases

the probability that future reinforcing interactions will occur, thus fostering a new relationship (Kelly, 1982). Because the skills necessary for establishing relationships change with development, the actual skills being targeted in relationship-building interventions differ depending on age, though the mechanisms through which these skills are trained typically do not.

A specific type of relationship building skill relevant for older adolescents and adults is date initiation. Date initiation skills include those required to meet potential partners, initiate conversations that are appropriate and indicate interest, and ask for a date (i.e., continued interaction in the future; Kelly, 1982; Valenti-Hein, Yarnold, & Mueser, 1994). Date initiation skills are a specialized subset of conversation skills with differences in the purpose of the interaction and some of the verbal content during the interaction, such as expressing desire. In addition, date initiation involves affectionate motor behaviors such as touching and hand holding, and the interaction occurs between the individual and someone with whom he/she is physically/sexually attracted, which is likely not the case with other interactions (Kelly, 1982).

Social problem-solving skills training. In an effort to improve the social competence of individuals with significant deficits in this area, most social skills interventions focus on improving the use of observable behaviors within a social context. Social problem solving, in contrast, is a cognitive strategy that serves as a general approach to enhancing interpersonal effectiveness. Specifically, "social problem-solving is defined as a cognitive-affective-behavioral process through which an individual (or group) identifies or discovers effective means of coping with problems encountered in everyday living" (D'Zurilla, 1986, p. 18). The process of social problem solving follows a set of steps in which individuals (a) define the problem and desired goal/outcome, (b) generate possible solutions to reach the desired outcome, (c) evaluate the possible solutions, (d) choose the best solution, (e) implement the solution, and (f) evaluate the outcome (D'Zurilla, 1986). Though these skill components involve more cognitive evaluation than observable performance, they are trained using the same behavioral techniques previously described (e.g., Hansen et al., 1985; Tisdelle & St. Lawrence, 1988). Social problem-solving training has been used alone or as part of a larger social skills intervention or psychological treatment package for an array of populations, including elementary school children (e.g., Alvarez et al., 1984), socially anxious children (e.g., Spence et al., 2000), aggressive children (e.g., Lochman & Curry, 1986), adolescents with conduct problems and severe impairments such as autism (e.g., Plienis et al., 1987), parent-child/adolescent dyads (e.g., Barkley et al., 2001), and adult psychiatric patients (e.g., Hansen et al., 1998).

GENERALIZATION

Generalization refers to the occurrence of newly acquired skills in settings or situations different from those in which the skill was originally learned (Stokes & Baer, 1977; Stokes & Osnes, 1989). The maintenance of skills across time is considered to be an aspect of generalization (Elliott et al., 1987; Hansen et al., 1998). Generalization is the most important aspect of SST because without it, treatment efforts are basically meaningless, as the goal of any social skill intervention is to improve the individual's ability to function in social settings and gain reinforcement within a social context. Therefore, treatment should be terminated only when generalization has occurred, and accurate assessment plays a vital role in determining this.

Because generalization typically does not occur spontaneously, clinicians must actively program for it, and there are numerous strategies for doing so (Stokes & Baer, 1977; Stokes & Osnes, 1989). As discussed earlier, simply conducting treatment in a group, rather than individual, format may increase generalization because of increased stimulus and response exemplars (Hansen et al., 1998). Regardless of treatment format, choosing practice situations that closely resemble the client's natural environment may encourage generalization across settings (Hansen et al., 1998), while using a variety of practice situations that allow the client to use new skills under different conditions may increase generalization across situations/individuals (Greco & Morris, 2001; Kelly, 1982). Increasing treatment adherence (e.g., session attendance, participation during session, and completion of homework assignments) may also be crucial for generalization of treatment effects (Hansen et al., 1998) as may be the inclusion of important others such as peers, parents, teachers, and caregivers (Greco & Morris, 2001).

Another strategy for enhancing generalization is to train on general principles rather than on specific scripts or responses, for example, by incorporating social problem-solving skills into the SST curriculum (Hansen et al., 1998). The use of cognitive restructuring and positive self-talk, though generally not considered a mainstay of social skills interventions, may assist with generalization of treatment effects (e.g., Baum, Clark, McCarthy, Sandler, & Carpenter, 1986). Cognitive restructuring is helpful in addressing barriers, such as expectations of negative outcome, fear of negative evaluation, or low self-efficacy, that often interfere with implementation of newly learned skills in the natural environment (Kelly, 1982).

Outside of the actual treatment session, monitoring and in vivo exposure homework assignments can be used to facilitate generalization (Hansen et al., 1998). Clients can be encouraged to seek out opportunities in which they can use their newly gained skills. The situations, the behaviors of the client, and the outcomes can be tracked by either the client or someone in close proximity to the individual (e.g., caregiver, teacher, or inpatient staff). Because newly acquired social skills may not be reinforced immediately when used in the natural environment (e.g., a person who just learned to be assertive may not be positively reinforced by family members for using new assertion skills), the clinician can reinforce the client's attempts to use new skills based on self-monitoring homework or client report (Kelly, 1982). Alternatively, inpatient staff, parents, and teachers can be taught to reinforce clients as they use new skills outside of therapy, and clients can be taught to self-reinforce (Hansen et al., 1998). Maintenance of treatment effects (i.e., generalization across time) may be enhanced with the use of booster sessions after treatment has ended (e.g., Greco & Morris, 2001).

SOCIAL VALIDITY

Social validity refers to the degree to which interventions and skills targeted during treatment are relevant to the client's social environment, are accepted and valued by the client and important others, and are likely to produce positive outcomes and reinforcement in the social environment (Kazdin, 1977; Schwartz & Baer, 1991). Many social skills interventions target skills that clinicians intuitively think are important for adaptive social interactions, and these skills are then trained to levels deemed satisfactory by clinicians (Hansen et al., 1998; Hansen, Watson-Perczel, & Christopher, 1989). A social validity approach, in contrast, involves selecting target behaviors/skills that are acceptable to the client and others with whom the client is likely to interact and are related to successful social interactions in the client's natural environment (Christopher et al., 1993; Hansen, Watson-Perczel et al.,

1989). In addition, a social validity approach advocates training those behaviors/skills to an empirically derived level based on clients' natural environment and objectively demonstrating clinically significant improvements in functioning (Christopher et al., 1993; Hansen, Watson-Perczel et al., 1989) rather than relying solely on clinician judgment.

There are strategies that clinicians can use to ensure that interventions and, specifically, those behaviors/skills targeted during treatment are socially valid. One such strategy is to use social validation samples to determine which specific behaviors and levels of performance are important (Hansen, Watson-Perczel et al., 1989). Such samples are groups of "normal," similar age, same-sex peers who are functioning well socially. Comparing clients' behaviors to those of the social validation sample helps to identify socially valid behaviors as targets of intervention. For clinicians who work in settings such as schools and residential programs, it is relatively easy to find an appropriate social validation sample. In more isolated clinical settings, finding such a sample presents a somewhat greater challenge but remains a helpful pathway to socially valid treatment.

Another strategy to increase social validity is to use cue generation procedures to identify target behaviors for training. This practice involves enlisting clients themselves to identify social skills that are valued by their peer group and social environments; these skills then serve as targets for intervention (e.g., Dygdon, 1993). While this procedure seems fairly easy to implement, clinicians may run into difficulty when clients belong to peer groups considered deviant by society's standards. Other methods for selecting socially valid behaviors include using peer surveys (e.g., Plienis et al., 1987), staff or teacher ratings (e.g., Elder, Edelstein, & Narick, 1979), and template-matching procedures (e.g., Hoier & Cone, 1987). Template matching is a procedure, often used with children, that asks the target child to identify peers with whom he/she would like to play. Identified children are then asked to describe the kind of people with whom they like to interact. Characteristics of desirable playmates that are repeatedly identified can be used as templates with which to compare the target child during treatment (Hoier & Cone, 1987).

The same procedures used to identify and select socially valid behaviors/skills as targets of treatment can be used to determine socially valid criterion levels and evaluate treatment effectiveness (Hansen et al., 1998). For example, Holmes et al. (1984) used comparison to a social validation sample of nonpatient adults to determine criterion levels for conversational behaviors for psychiatric patients in a day treatment program. Another method is to conduct observations of global social behaviors in the target individual's natural environment to establish socially valid criteria, such as rates of positive social interaction for children in a playground setting (Hansen et al., 1998). Lastly, acceptability of treatment procedures, goals, and outcomes to the client or significant others can be assessed through formal or informal interview or questionnaires. Regardless of the specific strategies employed by clinicians to identify them, socially valid intervention techniques increase the likelihood that treatment gains will generalize and make the treatment efforts more worthwhile overall.

DEVELOPMENTAL CONSIDERATIONS AND SPECIAL POPULATIONS

Many psychological diagnoses and presenting problems are characterized by impaired interpersonal functioning. Therefore, social skills interventions are indicated, either as the main treatment modality or in conjunction with other treatment efforts, for a wide range of client populations. Children with emotional and behavioral disorders, socially rejected

children, individuals diagnosed with pervasive developmental disorders or developmental delays, individuals who are socially anxious, and individuals diagnosed with severe mental illness are some of the groups likely to need interpersonal skill building as part of their treatment. Although a thorough exploration of the extant literature for each of these groups is beyond the scope of this chapter, we highlight special considerations for applying SST to these populations and offer brief comments on the evidence base for such interventions.

Children and Adolescents

Social skills interventions are frequently used with child populations (Cox & Schopter, 1991), and targeted skills vary based on developmental level. The most common social skill dimensions targeted in interventions with children, in general, are peer relationship skills (e.g., prosocial play, giving compliments, praising peers, initiating play dates, and sports etiquette; Frankel & Myatt, 2003), self-management skills (e.g., receiving criticism well, controlling temper), academic skills (e.g., listening to and carrying out teacher directions, ignoring peer distractions while working), compliance skills (e.g., Webster-Stratton & Hammond, 1997), and assertion skills (e.g., Merrell & Gimpel, 1998). Social skills may be targeted as a primary focus of intervention, or as part of other child therapy or educational approaches, such as parent training and emotion coaching. For older children and adolescents, interventions usually target more complex behaviors, such as joining groups or some of the more challenging aspects of communication (Cox & Schopter, 1991) and interpersonal problem solving (Tisdelle & St. Lawrence, 1988).

Although the social skills targeted in training vary depending upon developmental level, most of the techniques used are basically the same as those used with adults (Kelly, 1982). An exception to this similarity is the use of peer mediation. In peer mediation interventions, a peer without social skill deficits receives SST similar to that of the identified client and then serves as a positive role model for the client, acts as a practice partner, and facilitates interaction with other children (Christopher, Hansen, & MacMillan, 1991; Guevremont, MacMillan, Shawchuck, & Hansen, 1989; Pierce & Schreibman, 1997). The school setting lends itself well to peer mediation by providing a pool of readily available, similar-aged peers. Enlisting the help of teachers and parents in peer mediation and other SST for children is particularly important for generalization because they can help create opportunities for children to practice newly acquired skills in natural settings, and they can reinforce efforts in everyday life more frequently than can a clinician (Hansen et al., 1998).

Emotional and behavioral disorders (EBD). SST is often recommended for children with EBD (Quinn, Kavale, Mathur, Rutherford, & Forness, 1999). This category of disorders refers to children with a variety of problems that lead to challenges in social settings, including youth with aggression or antisocial behaviors, Attention-Deficit/Hyperactivity Disorder (ADHD), and depression or anxiety (Merrell & Gimpel, 1998). A variety of issues arise when working with these populations that should be considered when implementing social skills inventions.

Compared to their peers, children with conduct disorders and aggressive behaviors show decreased ability to perceive and evaluate social cues, are more likely to make negative attributions about the intentions of others, and generate fewer and less effective solutions to social problems (Crick & Dodge, 1994). Bierman, Miller, and Stabb (1987) reported that social skills interventions with this population should teach children what *to do* as well as what *not* to do, and their approach decreased negative behaviors and increased positive responses in social situations. Sheridan (1995) suggested that groups with conduct-disordered

youth include non-referred children so that positive role models exist for the aggressive children who otherwise could serve as negative models for one another. This approach can also increase peer acceptance, which can be a daunting task even if social skills improve because of the relatively long-term effects of reputation among children (Merrell & Gimpel, 1998).

With regard to the application of SST to youth falling within the broad EBD category, outcome studies have yielded equivocal results. In a meta-analysis of 35 studies examining social skills interventions for youth with EBD, Quinn and colleagues (1999) found only modest effect sizes, suggesting that this type of intervention may not lead to significant improvements following treatment. Still, these researchers argued that not addressing social skill deficits in this population via specific and targeted interventions would be detrimental.

Clinical and research efforts also have focused on ADHD specifically, as more than 50% of children with ADHD may experience significant difficulties in social relationships (Pelham & Bender, 1982). For instance, others (i.e., parents, teachers, peers) have described children with ADHD as more "aggressive, disruptive, domineering, intrusive, noisy, and socially rejected" than typical children (Barkley, 2006, p. 198). Furthermore, children with high levels of ADHD symptomatology are five to six times more likely than their normal peers to demonstrate broad social skill/competence difficulties (Merrell & Wolfe, 1998). In contrast to some groups of children, those with ADHD may understand appropriate interactional behavior but are likely to show deficits in producing the skills at the appropriate time because ADHD results in performance rather than skill deficits (DuPaul & Stoner, 1994). SST with this population typically includes procedures to reduce inappropriate behaviors, and interventions often focus on social entry, conversational skills, conflict resolution and problem solving, and anger control (de Boo & Prins, 2007; Guevremont, 1990).

Research on the effectiveness of social skills interventions with children with ADHD has produced mixed results. For example, Antshel and Remer (2003) found some improvement in parent-rated assertiveness skills for children diagnosed with ADHD who completed a group SST program. Overall, however, results indicated that the majority of participants failed to demonstrate clinically significant improvements in general social skills. As a result, Barkley (2006) concluded that while SST for children with ADHD shows some promise, it should not be used as a stand-alone treatment for addressing social impairments in children with ADHD.

Social isolation and rejection. SST has been used with isolated/rejected children to increase the frequency and quality of peer interactions (Kelly, 1982), and Erwin's (1994) review suggested that such interventions can produce significant improvements for these children in a number of social areas, including level of social interaction, sociometric status, and problem-solving abilities. Isolated/rejected children may exhibit skills deficits at the individual level (i.e., characteristics and behaviors of the specific individual), the dyadic level (i.e., relationships between two people), and the group level (i.e., interactions within a social group; Ladd & Keeney, 1983). Asher and Renshaw (1981) recommended that social skills interventions with this population incorporate four components (skills, knowing when to use the skills, monitoring their effect on others, and using feedback to modify future behaviors) that target the three levels.

Assessment should include an understanding of how individual, dyadic, and group deficits contribute to isolation and/or rejection. Even when individual social skills deficits are successfully addressed, it may be necessary to intervene at the dyadic or group level because efforts by the individual child to change behaviors or interactions may be thwarted by the group striving to maintain homeostasis (Ladd & Keeney, 1983). Peer mediation may be helpful to address the dyadic level because this approach increases the likelihood of reciprocal interactions and may increase generalization and maintenance. Peer-helper interventions, in which peers are recruited to receive reinforcement and brief training for bringing an isolated

child into social interactions in real-world settings (e.g., school recess), have been shown to be effective (e.g., Christopher et al., 1991; Guevremont et al., 1989; Laushey & Heflin, 2000).

Adolescent challenges. Changes that occur in adolescence include physical maturation, sexual maturity, and the development of more advanced cognitive abilities. During this stage of development, the peer group becomes increasingly salient, and relationships with romantic partners become a key component of many adolescents' social networks (Christopher et al., 1993; Hansen, Christopher, & Nangle, 1992). In addition, because of the social nature of sexual behavior, social skills have significant importance for appropriate sexual interaction and the prevention of high-risk sexual behavior (Nangle & Hansen, 1993, 1998). For gay and lesbian youth, dating and social relationships are often complicated by adult and peer attitudes and beliefs about homosexuality. As such, issues such as forming and maintaining friendships, assertiveness, dating, and sexuality frequently require attention in SST with adolescents (Shendell, 1992). Developmental influences, such as defensiveness, rebelliousness, self-esteem, and identity, can also have an impact on treatment (Shendell, 1992).

Developmental Disabilities

Social skills interventions are commonly used with individuals with mental retardation (e.g., Huang & Cuvo, 1997; Matson, Manikam, Coe, & Raymon, 1988) and pervasive developmental disorders (e.g., Laushey & Heflin, 2000; Webb, Miller, Pierce, Strawser, & Jones, 2004). Recent years have seen a surge in the number of studies examining the clinical utility of SST for people with developmental disabilites, particularly interventions based on principles of modeling and reinforcement (Matson, Matson, & Rivet, 2007), with results suggesting that this treatment modality is useful and important for improving functioning.

For these individuals, failure to develop social skills may result, at least in part, when certain events or outcomes typically associated with specific skills are not reinforcing (Kelly, 1982). The degree of deficit differs depending upon the severity of the disability (Merrell & Gimpel, 1998), and the focus of training should vary accordingly. For mildly disabled individuals, eye contact, voice volume, and content of speech are often the focus of SST (Matson & Ollendick, 1988). For individuals with more profound disabilities, SST may target more basic skills, such as head orientation and appropriate affect (Matson & Ollendick, 1988). The training format for most individuals with developmental disabilities should be highly structured. Individuals who are more severely impaired benefit from operant conditioning approaches provided in small, discrete units (Matson & Ollendick, 1988). In addition, generalization can be more challenging than with other populations and, thus, must be addressed directly in training.

People with autistic spectrum disorders face distinct challenges in acquiring skills and using learned social skills appropriately, particularly in peer settings. Ozonoff, Dawson, and McPartland (2002) advised families that social difficulties for youth with autistic disorders are often more apparent with peers because families have adapted to the child's deficits in the home setting. With respect to intervention, these researchers recommended that more general social skills interventions be adapted to emphasize teaching nonverbal behaviors, such as eye contact, social distance, voice volume, and facial expression, what they call "social body language" (p. 193). It is also recommended that complex social behaviors be taught in specific, concrete steps and practiced in multiple settings and that parents and teachers be included to coach and reinforce the social skills in real-world settings (Kransny, Williams, Provencal, & Ozonoff, 2003). In addition, Ozonoff and her colleagues (2002) encouraged using the "therapeutic relationship as a forum for modeling and teaching social skills" (p. 195), including therapists demonstrating and reinforcing appropriate skills in naturalistic settings.

Social Anxiety

Research has shown that individuals with social anxiety are often rated as less socially skilled than their nonanxious counterparts (e.g., Norton & Hope, 2001). Persons with social anxiety speak less often, look at others less, and are more avoidant (e.g., initiate fewer interactions, avoid social gatherings) than nonanxious individuals (Spence, Donovan, & Brechman-Toussaint, 1999; Trower, 1986). These, and other social behaviors, are frequently targeted in SST. Not all individuals with social anxiety, however, display social skills deficits. Rather, some socially anxious individuals perceive themselves to have deficits, but, in actuality, demonstrate typical social skills (Trower, 1986), making it important for therapists to determine whether deficits are actual or perceived.

The choice between individual and group intervention is particularly salient for socially anxious individuals. Winter and Marzillier (1983) stated that if individuals are extremely anxious, they are unlikely to learn from the group experience and may withdraw from treatment. If the individual is willing to participate in a group intervention, however, the intervention will likely not only increase social skills but also reduce anxiety (Albano et al., 1995). Treatment with this population may need to move forward more slowly than with "normal" adult populations. Participants' anxiety should be monitored throughout the intervention, and it may be helpful to teach relaxation techniques prior to introducing the more demanding social skill exercises (Winter & Marzillier, 1983).

Research findings on the effectiveness of SST for individuals with social anxiety are mixed. Earlier studies indicated that improvements are made in the short term, but that generalization and durability are variable (Trower, 1986). More recent studies, however, have suggested that incorporating SST into standard cognitive-behavioral group therapy for socially anxious individuals does, in fact, increase treatment gains (Herbert et al., 2005).

Severe Mental Illness (SMI)

Spaulding, Sullivan, and Poland (2003) noted that SST was the first of the social learning technologies to be adapted to the rehabilitation of individuals with SMI, such as schizophrenia. Within an institutional setting in which many individuals with SMI may spend time, peer models of appropriate social skills are often scarce. There are fewer opportunities for observational learning to occur and for appropriate exhibition of social skills to be naturally reinforced (Kelly, 1982). When intervening with SMI populations, the types of behaviors/skills targeted can vary depending on the setting and phase of the disorder (Kopelowicz, Liberman, & Zarate, 2006). Although intervention needs to be tailored to the individual (Marzillier & Winter, 1978), there are some areas that are commonly addressed: speech content, distractibility, social withdrawal, and lack of emotional response (Tsang & Cheung, 2005).

Intervention for persons with SMI must be delivered in an intensive format if it is to have an impact on social functioning (Curran & Monti, 1982). The treatment protocol is extensive, often with 2–6 intensive sessions per week for 12 weeks or more (Kurtz & Mueser, 2008). Shepherd (1986) stated that the additive principle may apply to this population in that the more techniques that are used (e.g., modeling, tangible rewards) the greater the effectiveness of the treatment. Overall, SST has been found to be an effective intervention for this population (Dilk & Bond, 1996; Kurtz & Mueser, 2008; Tsang & Cheung, 2005). In fact, Cui, Yang, and Weng (2004) found that SST improved the positive symptoms, negative symptoms, and cognitive functioning of individuals with SMI.

CONCLUSION

Social skills interventions are valuable for a wide variety of clinical problems occurring across the life span. Interventions can address a range of potential target behaviors via various modes of delivery and can either serve as the primary treatment or as an adjunct to other interventions. While the format and options for treatment can vary across different ages, clinical problems, and settings for intervention, behavioral and social learning principles are central to intervention, including the core techniques of instruction, modeling, rehearsal, feedback, and reinforcement. The dyadic and reciprocal nature of social interactions, along with reputational biases that can continue despite improved skill, can limit opportunities for improved social functioning and present major challenges for the success of social skills intervention. As a result, interventions must include efforts to facilitate generalization across social situations, maintenance over time, and functional, socially valid effects for the individual.

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Part III
Special Topics and Populations

Chapter 8

Developmental Factors Related to the Assessment of Social Skills

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A developmental perspective is critical when assessing children's social skills. The behaviors that foster peer acceptance and those that elicit peer dislike change with age. Concurrently, the cognitive capacities that children bring to bear when analyzing and solving their social problems undergo significant qualitative transformations. Dramatic changes also occur in the nature of the social contexts that children navigate at different ages. All of these factors affect the degree to which particular behaviors and cognitions are adaptive socially and, hence, affect the operational definition and assessment of social skills at various ages (Bierman & Montminy, 1993). This chapter begins with an overview describing the influence of development on social competence and social skills. Then, in separate sections, we characterize the nature of peer interactions, social-cognitive reasoning, and peer group organization at three key developmental periods: (1) the preschool years (ages 3–6), (2) middle childhood (ages 7–11), and (3) adolescence (12–17). Implications of these developmental changes for social skill assessment are discussed.

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DEVELOPMENTAL OVERVIEW

Developmental research indicates that significant normative changes take place during the preschool, grade school, and adolescent years in (1) the focus and duration of peer interactions and corresponding nature of peer-approved (and disapproved) behaviors, (2) the complexity of children's social reasoning and emotional understanding, and their capacity for self-regulation, and (3) the organization of the peer group and the extent and nature of peer influence. These developmental changes affect the determinants and characteristics of socially skillful behavior and therefore warrant attention when assessing social skills.

When social skill assessment and training models first began to emerge in the 1970s, clinical researchers focused on identifying and measuring specific behaviors that were associated with effective social interaction. LaGreca (1993) called this a "molecular" approach to social skill assessment, as social skills were being defined as discrete behaviors that were (ideally) standard and universal indicators of social effectiveness (such as maintaining eye contact when speaking with someone, following standard greeting and introduction protocols when meeting someone). However, this approach to social skill assessment proved unsatisfactory. As it turned out, it was quite difficult to establish the validity of molecular skills, and researchers concluded that social skills could not easily be reduced to a static boilerplate of effective discrete behaviors (Bierman & Welsh, 2000; Dodge & Murphy, 1984).

Part of the difficulty lay in the fact that the same behaviors may be more or less effective and appropriate depending upon the context in which they are expressed. Particularly salient to this chapter topic, the importance of certain social behaviors (and the inappropriateness of others) develops over time, leading to systematic changes in the behavioral correlates of social competence at different ages. Making social skill assessment even more complex is the fact that social competence has to be viewed functionally, in terms of a child's ability to organize social behavior in a way that attracts positive responses (and avoids negative responses) from others in various social contexts and in a manner congruent with existing social conventions and mores (Dodge & Murphy, 1984; Rubin, Bukowski, & Parker, 1998). Hence, social competence requires the capacity to draw from a repertoire of appropriate social behaviors and use them flexibly in response to ongoing social feedback and stimuli. This process involves social-cognitive capabilities and self-regulation skills that permit children to select and engage in social behaviors sensitively and appropriately in different situations (Sroufe, 1996). In turn, these social-cognitive and self-regulation skills develop with age.

In addition, the complexity of peer relations themselves change with age, and development affects how peers value and respond to different social behaviors. Whereas preschool peer relations are characterized primarily along a dimension of acceptance, by gradeschool, peer relations become more multifaceted. New, refined, and divergent sets of social skills are needed to form close friendships, to avoid rejection, and to protect against victimization, as well as to maintain group acceptance. By adolescence, the peer context becomes more complicated yet, as peer cliques and crowds emerge (Brown & Klute, 2003). Most children in America transition from small, open preschool groups to structured and larger elementary classrooms between the ages of 4–7. Then, between the ages of 11–14, they make a second transition from self-contained elementary classrooms to the larger, fluid multi-class organization of the middle or junior high school. At each of these transitions, the onion representing the peer group gains additional layers of relationships and social influences, creating demands for additional social skills to navigate new levels of social complexity.

In summary then, development has a central impact on multiple skill domains that operate interactively to support (or impede) effective social functioning. It affects the normative

nature of various social behaviors, the sophistication of children's social reasoning, emotional functioning, and self-regulation, and the complexity of the peer context and social demands (Parker, Rubin, Price, & DeRosier, 1995; Rubin et al., 1998; Sroufe, 1996). The next sections describe the prototypical social demands and skills associated with preschool, elementary, and adolescent social competence.

Domains of Developmental Change Affecting Social Skill Assessment

Behavioral Correlates
- The acceptability of various social behaviors
- The correlates of peer liking and disliking

Social Cognitions and Emotional Functioning
- The complexity of social reasoning about others
- The characteristics of self-appraisal processes
- Capacity for self-regulation

Peer Group Organization
- The quality of peer interactions and the nature of friendships
- The size and organization of the peer group

THE PRESCHOOL YEARS

Even as early as the toddler years, most children show a specific interest in other children and make efforts to initiate contact (Hartup, 1983). However, it is not typically until the preschool years that children begin to engage in sustained and ordered play patterns with other children and begin to use the word "friend" in a meaningful way (Furman, 1996). Normatively, most preschool children are highly motivated to move beyond adult–child interactions and begin to explore and take pleasure in the cooperative and shared fantasy play offered by peers (Gottman, 1983). As play partners, preschool peers provide an important context for socialization, offering companionship, entertainment, and unique opportunities for interpersonal learning and the development of social skills (Hartup, 1983). Preschool peer interactions are grounded in fantasy play that stimulates imagination and allows children to explore and consolidate their understanding of various social roles, social routines, and conventions (Mize & Ladd, 1990; Parker et al., 1995). In order to sustain friendly exchanges, children are challenged to master the "golden rule" of reciprocity; they must learn to engage, cooperate, and compromise (Parker et al., 1995). By age 4, individual differences in social skill and social impact can be measured reliably by teacher ratings and observations, and these differences predict peer acceptance both concurrently (in preschool) and predictively (into grade school) (Ladd & Profilet, 1996; Ladd, Price, & Hart, 1988).

Behavioral Correlates of Social Competence

Emerging prosocial skills are of central importance during the preschool years. Well-liked preschoolers participate in pretend play and share toys in a reciprocal manner (Eisenberg & Fabes, 1992). They approach others with positive affect and friendly overtures, and they respond positively to peer initiations (Denham & Burton, 2004; Eisenberg & Fabes, 1992).

They are able to sustain interactive, reciprocal play, by paying attention to their play partner, and responding in ways that support their partner or elaborate the play (Gottman, 1983; Hartup, 1983). Specific skills associated with peer acceptance include expressing positive affect, attending to one's play partner, initiating nurturing behaviors (helping, sharing), being agreeable, and mastering reciprocal play sequences (turn taking, role playing). Engaging in shared play is important, because it is in this concrete play context that children identify common ground interests (e.g., "we both like cars") and develop mutual affective bonds (Gottman, 1983). In addition, the ability to communicate clearly in play fosters sustained interaction (Gottman, 1983). Interestingly, compared with children who are less prosocially engaged in preschool, children who show high rates of prosocial play also tend to show high levels of academic school readiness, including competence motivation, attention, persistence, and positive attitudes toward learning (Coolahan, Fantuzzo, Mendez, & McDermott, 2000).

In addition to their association with concurrent peer acceptance, the emergence of cooperative play skills in preschool also predicts positive school engagement and positive peer relations after elementary school entry (Ladd & Price, 1987). Conversely, preschool children who show low rates of prosocial engagement are at increased risk for anxious-withdrawn and/or aggressive-disruptive behavior problems, and stable peer difficulties during the transition into grade school (Ladd & Profilet, 1996).

During the late toddler and early preschool years, children begin to develop the skills needed to effectively inhibit and redirect impulsive and aggressive behaviors. In general, aggressive behavior is not uncommon when children first enter preschool and attempt to play with others (age 2–3). Normatively, however, rates of aggression decrease sharply during the preschool years, as children develop the verbal, emotional, and social skills that allow them to inhibit their first impulses, comply with social protocol, and "use their words" to voice dissatisfaction and resolve disagreements (Ladd, 1990; Vitaro, Tremblay, Gagnon, & Boivan, 1992). Elevated rates of aggression are less likely to disturb peer relations during the preschool years than in elementary school (Hartup, 1983). In fact, socially effective and dominant preschool children often show moderate levels of aggressive or coercive behavior, which they use to access resources or influence play (Vaughn, Vollenweider, Bost, Azria-Evans, & Snider, 2003). As Vaughn et al. (2003) note, highly sociable children naturally encounter more frequent conflicts than children who are less engaged. Theorists have speculated that the aggressive exchanges that occur around resource control and dominance during the preschool years represent normative opportunities for learning to manage conflict and promoting social-emotional learning (Shantz & Hartup, 1992). For this reason, the presence of prosocial skills and positive social engagement (rather than the rate of aggressive-disruptive behavior) is the primary index of social competence during the preschool years. However, the capacity to control aggression becomes increasingly important to peer relations during these years. Across the course of the preschool years (as children move from 3 to 5 years), those who continue to show high rates of disruptive and argumentative behavior are increasingly likely to experience peer rejection and retaliation (Ladd et al., 1988; Olson, 1992). During the preschool years, it is normative for children to exhibit some aggressive-disruptive behavior. However, aggressive-disruptive behaviors are cause for concern when they are expressed at very high rates, without accompanying prosocial skills, and when they do not decline over time with accumulating opportunities for learning self-regulation and conflict resolution skills.

Social Cognitions and Emotional Functioning

In preschool, children have limited capacity to manipulate and compare concepts mentally (Fischer, 1980). Their social perceptions are concrete, unidimensional, and heavily

influenced by recent personal experiences (Peevers & Secord, 1973). Preschool children are just beginning to notice and describe themselves and others, and their descriptions tend to focus on a few concrete features, such as sex and hair color. "Friends" are people who play with them or go to their school (Furman & Bierman, 1983). These friendships exist primarily in the "here and now", with squabbles emerging and resolving easily among friends. For example, it is not unusual for a preschool child to announce he/she has made a new friend after a brief interaction, or to decide he/she is no longer friends with someone after an altercation. Altercations are often short-lived, with friendships revived (and the altercation forgotten) after a brief period of time.

Preschool children have trouble thinking about multiple dimensions at one time, and find it difficult to integrate conflictual information about others. For example, Burns and Cavey (1957) asked young children to describe the emotions of characters in pictures where the character's facial expression was inconsistent with the situation (e.g., a child frowning at a birthday party.) Until the ages of 5–7, children based their inferences exclusively on the situational cues, and failed to even notice that the facial cues were inconsistent. Similarly, Gollin (1958) showed children movies in which central characters performed "good" acts in two scenes and "bad" acts in two scenes. When asked to retell the story, the younger children often remembered selectively that the character engaged in one type of act – either good or bad. They denied that the other actions happened or attributed them to other story characters. Young children cannot mentally compare what they are thinking with information about other persons and deduce how others' thinking may differ from their own (Fischer, 1980). Hence, overall, their social perceptions are egocentric, global and undifferentiated, and concrete. Until children become able to mentally compare and manipulate concepts, they are not very good at understanding cause-and-effect sequences or predicting others' social behavior. This means that social concepts that seem basic to adults are often beyond the understanding of preschool children. Parents and teachers sometimes try to foster social understanding by encouraging children to consider complex motives or use self-reflection to guide future behavior. For example, a teacher might encourage a child to forgive a peer because "he did not do it on purpose, it was by accident"; a parent might plead with the child to share her toys with a visiting peer by asking "how would you feel if you were at her house and she wouldn't let you play with her toys?" However, these reflective and comparative types of social reasoning are not available to preschool children. In general, they are operating within a much more immediate, and self-focused social world, where the critical social-cognitive skills for social acceptance involve the capacity to recognize proper social behaviors (take turns, share toys, do not hit or bite) and the capacity to differentiate and label basic emotions in oneself and others.

Socially effective preschool children do show greater knowledge of socially appropriate strategies for solving everyday social conflicts than children who have peer difficulties. For example, Dodge, Bates, and Pettit (1990) interviewed children prior to school entry, and showed them pictures of everyday conflicts (e.g., a child who wanted to swing, when someone was already on the swing). Children who could generate several ideas about how to get a turn on the swing appropriately (e.g., without using aggression) were more likely to gain peer acceptance when they entered grade school, whereas children who generated few ideas and relied on aggressive solutions tended to show higher levels of aggressive behavior and develop peer problems in grade-school.

Socially competent preschool children (as rated by both teacher and peers) also show higher levels of emotional understanding than less effective children – they are better able to accurately identify emotional expressions in pictures and to recognize events that elicit particular emotional reactions (Denham & Burton, 2004). Indeed, one study found that the ability to recognize and label emotional expressions measured in preschool predicted parent

and teacher ratings of social behavior and adjustment 4 years later, when children were in middle childhood (Izard et al., 2001).

Theorists have speculated that developing social reasoning and related executive function skills (e.g., working memory, attention control, behavioral inhibition) play a particularly important role in fostering social competence during the preschool years. These skills provide a foundation for self-regulation, particularly under conditions of emotional arousal. Observational research suggests that socially competent preschoolers are better able to regulate affect and behavior when excited or upset (Eisenberg & Fabes, 1992) and can inhibit their behavioral impulses through self-distraction in tasks that require delay of gratification (Raver, Blackburn, Bancroft, & Torp 1999). Preschool play often involves mild frustrations (e.g., waiting in line, sharing a prized toy) and can be very stimulating emotionally, both exciting and disappointing. Well-liked children are able to weather the emotional ups and downs of peer interaction, maintaining their own emotional equilibrium and recovering from mild setbacks and disappointments (Eisenberg & Fabes, 1992). In contrast, children who are often irritable and unhappy, easily annoyed by others, and emotionally reactive in the face of conflict or frustration are less rewarding as playmates and have more difficulty gaining acceptance by their peers (Eisenberg & Fabes, 1992).

Peer Group Organization

Preschool children show distinct preferences for certain classmates, and some develop consistent close friendships that are sustained over time (Gottman, 1983). However, in general, peer interactions are more fluid, and sociometric status is more variable among preschool children than at older grade levels (Parker et al., 1995). Relatively small events (e.g., a dispute over a toy) can disrupt a preschool child's affections for a peer, but grudges are short-lived and positive interactions are corrective. The degree of closeness experienced in preschool peer relations is influenced heavily by the frequency of interactions, and children rarely differentiate levels of friendship, other than having one or two special playmates. Finer distinctions (such as best friend, other close friends, friends, acquaintances) do not emerge until later in grade school. Cross-gender friendships and play interactions are more common than at later ages (Hartup, 1983).

THE GRADE-SCHOOL YEARS

As children move into grade school, the context for peer relations changes in significant ways. In preschool, most of the time is spent in a relatively open classroom, with an action-based curricula that allows children to navigate through activities and peer interactions with a fair amount of autonomy. Large group activities are relatively infrequent, and support for social skill development is viewed as a primary school goal. In contrast, in the elementary context, the classroom is more structured, and large group activities dominate. In general, peer interactions, both during the school day and during extracurricular activities, are also more structured and rule based than in preschool, often involving larger peer groups in coordinated play (e.g., games, sports, group activities.)

The transformation from preschool to elementary social structure is made possible by children's developing social-reasoning skills, which both enable and reflect the rule-based culture of the grade school peer context. The social skills required for successful adaptation are affected, as self-control skills and the ability to inhibit disruptive behavior and engage in rule-governed play join prosocial play skills as critically important for

attaining acceptance and avoiding rejection by peers. In addition, as children begin to organize for large group play, multiple dimensions of peer relations emerge, with distinct correlates. These include close friendships, group acceptance, peer rejection, and peer victimization.

Behavioral Correlates of Social Competence

Whereas parallel play and dramatic play were modal during the preschool years, peer interactions become more organized, elaborate, and rule governed in grade school. Prosocial skills (sharing, helping, cooperation), which emerged as the primary correlates of peer acceptance in preschool, continue to predict peer acceptance in elementary school. Prosocial attitudes (e.g., being viewed as kind, considerate, and empathetic) join the behavioral descriptors as correlates of acceptance (Parker et al., 1995).

The capacity to control aggressive-disruptive behavior and engage in self-regulated behavior began to emerge in the late preschool years as correlates of peer acceptance. By elementary school, self-regulation and the capacity for rule-governed behavior take center stage, becoming critical skills for effective peer integration in the rule-based play of elementary students. Indeed, by second grade, aggressive-disruptive and hyperactive-inattentive behaviors become the strongest predictors of peer rejection (Parker et al., 1995). Rule-based game play requires behavioral inhibition, focused attention, and the capacity to delay gratification. Understanding and honoring the principles of fair play, handling the pressures of competitive play, and following complex rule structures are key to successful participation in the grade school games that frequently involve multiple players and specific protocols.

In general, children are transitioning between preschool and elementary play structures between the ages of 5 and 7, with more structured play characterizing the majority of large group peer interactions by age 8. Correspondingly, rough-and-tumble play and overt aggression continue to decline normatively in kindergarten and first grade, reaching low levels by second grade (Hartup, 1983). At the same time, peer censure for aggressive behavior increases, particularly for reactive and outburst anger, and norm-breaking behaviors, such as rule violations, cheating, and poor sportsmanship. Whereas most preschool aggression is overt, older grade school children begin to use more indirect and relational aggression, including exclusion, ignoring, and rumor spreading, as forms of social control and domination (Bjorkvist, Lagerspetz, & Kaukiainen, 1992). Children who show high rates of relationally aggressive behavior also risk peer censure and rejection (Crick & Grotpeter, 1995).

Social Cognitions and Emotional Functioning

Between ages 4 and 7, as children are transitioning into grade school, they are also making the important cognitive transition from "preoperational" to "concrete operational" thinking. This transition tends to occur somewhat later in the domain of social-emotional reasoning than cognitive reasoning, contributing to notable shifts in social-emotional reasoning near the end of this developmental window (e.g., around 6–7 years of age) (Harter, 1998). During the early grade-school years, children master the ability to mentally consider relationships among concepts. They can represent a series of actions (rather than just a single concept or action), describe concepts in relative terms (rather than in the absolutes of the younger child), and consider part-whole relationships. Lawfulness, logic, and rules enter

the social world as children become able to combine, integrate, and organize concepts along dimensions of time and space.

Grade-school children provide longer descriptions of others and show more differentiation among descriptions of themselves and others than do preschool children (Peevers & Secord, 1973). Children become able to make behavioral comparisons between two people and between a person's behavior and a general norm of behavior (e.g. "Billy runs a lot faster than Jason" or "She is the best artist in our whole class"; Barenboim, 1977). Such comparisons provide the foundation for the construction of abstract inferences about individuals' behavioral dispositions and personality traits ("He's stubborn" "He is always trying to boss others around.")

The emerging ability to make inferences about covert psychological traits enables children to construct more stable perceptions of others that can accommodate different concrete behaviors. In Gollin's (1958) study, for example, 10-year-olds who were shown film characters engaging in two inconsistent behaviors did not deny one of these behaviors as did the 6-year-olds but were able to form aggregated impressions in which they recognized the presence of the two divergent behaviors. On the positive side, these capabilities allow children to sustain friendships over time, to withstand disagreements, and to support higher level commitments to their friends (loyalty, empathy). Conversely, they are also able to sustain negative reputational biases, harbor sustained grudges against disliked peers, and organize campaigns of peer exclusion.

By grade school, children are able to make social predictions based on past experience. They exhibit biased attributions and expectations which make their social world more predictable but, unfortunately, also serve to crystallize social status and reduce opportunities for social mobility (Hymel, Wagner, & Butler, 1990). For example, Dodge (1980) set up a study in which grade school peers observed a social event with a negative outcome. When they were told that the perpetrator was a peer who had a reputation for being aggressive, they were likely to assume a malicious intention (he did it on purpose, to be mean), whereas they were more likely to attribute benign intentions if the perpetrator was a nonaggressive peer (it was an accident) (Dodge, 1980). In general, the expectations and attributions of grade school children serve to support the "status quo", resulting in negative reputational biases and negative peer treatment for disliked children.

Social-cognitive development also fosters the emergence of self-monitoring and social comparison capabilities. With development, children become increasingly capable of accurately reporting their social behavior and its effects on others and taking the perspective of others. They also become more competent at anticipatory planning and social problem solving, becoming able to generate multiple alternative solutions to social problems and evaluating the appropriateness of each prior to acting (Ladd & Mize, 1983). Children who continue to show deficits in emotional understanding and emotion regulation are particularly likely to show impulsive and reactive anger and aggression in grade school and become especially vulnerable to peer rejection and victimization. The relationship between emotion dysregulation and peer victimization becomes cyclical. That is, children who are victimized are often emotionally overreactive and report low self-esteem and high levels of social insecurity and anxiety; being excluded or attacked increases these feelings of insecurity and emotional reactivity (Hodges & Perry, 1996; Schwartz, Dodge, & Coie, 1993). Although some grade school children continue to use aggressive behavior strategically to gain social dominance, more commonly, aggressive grade school children are rejected by their peers. Emotion dysregulation, including irritability, moodiness, emotional volatility, low levels of emotional understanding, and angry outbursts tend to fuel more negative peer reactions and treatment (Bierman, Smoot, & Aumiller, 1993; Schwartz et al., 1993).

Peer Group Organization

During middle childhood, peer relations become more multilayered. At one end of the spectrum, children begin to develop special, best friendships, which are distinguished from other friendships on the basis of their emotional depth and commitment. At the other end of the spectrum, group relations become more differentiated as well. Peer acceptance becomes more distinct from peer rejection, as some children are neither liked nor disliked by peers (neglected children), whereas others are actively disliked (rejected children). Peer victimization also emerges as a distinct feature of peer relations during grade school.

The stable best friendships or "chumships" that begin to emerge during the later elementary school years are marked by a unique sense of affection for and commitment toward each other (Furman, 1996). Both in their expressed expectations and in their observed behaviors, grade school children differentiate their "best friends" from other friends and classmates. Theorists have speculated that these close relationships play a special role in development, providing a foundation for emerging skills needed in later life to sustain close romantic relationships, including self-disclosure, intimacy, loyalty, and the provision of emotional support (Parker et al., 1995).

As children begin to interact in the context of larger peer activities and become able to conceptualize comparative social relations across time, they can conceive of peer relations "in layers". In addition to recognizing their own friends, they become aware of the general group status of their classmates and can identify those who are liked or disliked by many peers. Correspondingly, social status becomes more crystallized, and peer acceptance and peer rejection become quite stable from year to year.

Grade school also marks the emergence of targeted victimization – the singling out of particular children for strategic bullying. In preschool and kindergarten, the likelihood that children will be victimized is determined by their exposure to aggressive peers, rather than a particular set of characteristics that makes them vulnerable to peer abuse (Monks, Smith, & Swettenham, 2005). By middle childhood, bullies become more selective and focused, targeting certain children for chronic victimization (Monks et al., 2005). Children who are emotionally volatile, isolated, and submissive are at increased risk for peer victimization (Hodges & Perry, 1996).

ADOLESCENCE

In early adolescence, most children experience a dramatic shift in the social structure of their school context, as they migrate from small, self-contained elementary classrooms to large, heterogeneous middle or junior high schools (Eccles, Wigfield, & Schiefele, 1998). With this shift, the peer context becomes much larger, adult monitoring is reduced, and new cliques and crowds emerge as prominent structures of peer affiliation and influence (Brown & Klute, 2003). Increasingly, social interactions occur in mixed-gender groups, and romantic relationships begin to emerge. Correspondingly, the capacity to interact comfortably in heterosocial contexts emerges as another facet of social competence.

Behavioral Correlates of Social Competence

In adolescence, most peer interactions still revolve around shared activities, but these activities become quite diverse, including organized sports, interest or hobby clubs, music

groups, religious youth groups, shopping, homework, or just "hanging out". Friendships become particularly important as youth enter adolescence, where they experience strong desires for personal validation through interpersonal intimacy (Furman, 1996). Close friendships provide companionship and emotional support, serving as a scaffold that allows adolescents to move away from their emotional dependence upon their parents and toward autonomous functioning as adults. These friendships are clustered within cliques of mutual friends, who spend time together, which are loosely connected in social networks that represent the crowd structures of many middle and high schools (e.g., the "popular group," the "jocks," the "brains," etc.) (Brown & Klute, 2003).

The changing social structure of the adolescent peer group and growing importance of friendship support place heightened demands on social perspective-taking skills and conversational skills. Communication (e.g., talking) surfaces as a major focus of peer relationships, and friendship expectations center on issues of intimacy, self-disclosure, and trustworthiness (Hartup, 1983). Conversely, social withdrawal and disengagement are increasingly costly to one's peer acceptance and vulnerability to victimization (Laursen, 1996; Rubin et al., 1998). By adolescence, social withdrawal is less normative than at younger ages and often represents a reaction to negative peer interactions experienced at younger ages. It is typically accompanied by feelings of social anxiety and inadequacy, and can elicit a cycle of peer exclusion, victimization, followed by heightened insecurity and further withdrawal (Rubin et al., 1998).

The movement from elementary schools to larger middle and high schools is associated with a dramatic increase in bullying and victimization (Juvonen, Nishina, & Graham, 2000). Up to three-quarters of young adolescents experience some victimization, with as many as one-third of the students in middle school reporting more extreme forms of peer harassment (Juvonen et al., 2000). Hence, the capacity to recognize and navigate the complex social structure, to access friendship support and find social niche comfort zones, and to cope confidently and effectively with peer pressures and peer hassles all become critical aspects of adolescent social competence.

Although aggressive-disruptive behaviors continue to elicit rejection by "mainstream" peers, the larger social structure of middle and high schools allows for the aggregation of "deviant" peer groups – peer groups that are characterized by the affiliations of youth with common, antisocial orientations. Fostered by academic tracking that places disengaged, poorly performing youth together, as well as by the tendency for aggressive youth to enjoy the high stimulation and risky behaviors of like-minded peers, these deviant groups often reinforce antisocial behavior and encourage covert activities, such as truancy, stealing, and substance use (Dishion, Andrews, & Crosby, 1995).

In adolescence, the phenomenon of "perceived popularity" also emerges. Unlike sociometric popularity (e.g., children who are nominated by many peers as "liked" and by few peers as "disliked"), children who are labeled "popular" by peers are those who have high levels of social impact as a function of their leadership positions in popular crowds. These youth are not necessarily well-liked, and in some cases, they use proactive aggression to attain peer dominance; but, they have high levels of social influence and visibility (Cillessen & Rose, 2005). Children, particularly girls, high in "perceived popularity" may also use relational aggression (exclusion, rumor spreading) effectively to maintain social dominance ("popular" status), but these behaviors reduce likability ratings by peers (Salmivalli, Kaukiainen, & Lagerspetz, 2000). Whereas sociometric popularity (being well-liked by most classmates) typically reflects a high level of prosocial skills and social competence, being perceived by others as "popular" does not convey the same information about a youth's social skill but rather reflects his/her social visibility and dominance.

Social Cognitions and Emotional Functioning

Parallel to developmental changes in the nature and structure of adolescent peer relations are significant transformations in children's social expectations and reasoning abilities. Between the modal ages of 11 and 14, as children are moving through puberty, their capacity for abstract and formal reasoning also begins to emerge. With these abstract skills, youth begin to think about others in terms of their personality characteristics and traits, as well as concrete behaviors. For example, adolescents describe their friends with trait descriptors, such as "good sense of humor," "enthusiastic," "cheerful," "athletic," and "intelligent." Adolescents still look for mutual interests among their friends, but they are concerned not only with what their peers can do but also with the kind of persons they judge their peers to be. Adolescents become more comfortable with diversity and social relativity; they can move beyond the more rigid rule-based or conventional expectations of grade school children and consider social standards that may vary depending upon the circumstances and individuals involved.

As youth develop the capacity for more abstract and formal reasoning, they increasingly evaluate themselves in comparison with their peers rather than in comparison to absolute standards (i.e., comparative appraisals). Their emerging capacity for recursive reasoning allows them to recognize that peers are also evaluating them, prompting concern with the content and valence of these evaluations (i.e., reflected appraisals) (Parker et al., 1995). Correspondingly, susceptibility to peer influence increases during adolescence, particularly in domains of preferred apparel and social behavior. Acceptance or rejection by peers often weighs heavily in adolescents' evaluations of their own self-worth. For example, when asked about the impact of potential rejection by peers, preadolescents and adolescents alike felt that they would miss the companionship, stimulation, and support provided by peers. But, middle school students, compared with 5th graders, were more likely to view peer rejection as an indication of their unworthiness as an individual ("If they don't accept you, you might feel like something's wrong with you – that you're not good enough"; "you just feel tossed away." – interview excerpts, O'Brien & Bierman, 1988).

Along with the increasing complexity of the social context, the adolescent's capacity for abstract and self-reflective thinking plays a role in promoting new levels of social distress. In addition to loneliness, socially disconnected adolescents may experience more complex feelings of distress, including anxiety, guilt, and alienation. Indeed, rates of social anxiety (e.g., an excessive fear of interpersonal scrutiny and potential embarrassment) begin to climb significantly in the preadolescent and early adolescent years, fueling increases in the onset of social phobia disorder, which peaks at age 15 (Mancini, Van Ameringen, Bennett, Patterson, & Watson, 2005). Whereas grade school children could "get by" socially by participating in group games and activities, the complex and relationship-based adolescent social structure requires more active efforts at social initiation, engagement, and conversation (Parker et al., 1995). These skills require a high level of self-regulation and social regulation, including the capacity to sustain interpersonal attention, regulate negative affect, and maintain positive interpersonal interest and orientation. Too much concern about what others think can inhibit engagement efforts. A negative developmental spiral can ensue, in which youth who are concerned and uncomfortable in the middle or high school social context withdraw and avoid social interaction, making them more vulnerable to victimization and limiting important peer socialization opportunities, thereby impeding the development of prosocial interaction skills.

Adolescent girls often report higher levels of social anxiety than boys (Nishina, Juvonen, & Witkow, 2005), and they are also more likely than boys to discuss their worries extensively

with their friends, revisiting problems and focusing on negative feelings in a pattern of co-rumination that may increase distress (Rose, 2002). Conversely, however, boys react more negatively to socially withdrawn behavior, making adolescent social withdrawal a more serious indicator of psychological risk for boys, for whom it is associated with low social and cognitive competence, moodiness, and low self-esteem (Morrison & Masten, 1991). Boys are also likely to experience more frequent and more severe physically aggressive victimization in middle school than girls (Juvonen et al., 2000).

Peer Group Organization

The social hierarchies that define adolescent peer groups develop in response to both the larger size of the peer group and as a function of the more sophisticated social reasoning and social awareness of the adolescents. For example, when elementary students were asked to describe the "groups" in their school, they had difficulty with the concept and often looked for discrete indicators to identify group membership ("Groups – what do you mean? Do you mean like reading groups?" – 5th grade interview, O'Brien & Bierman, 1988). By middle school, youth could easily describe social groups – group membership, crowd names, and descriptions of the modal norms and attitudes of various crowds (e.g., the brains who are smart and committed to academic achievement; the jocks who are athletic and into sports and dating) (O'Brien & Bierman, 1988). In addition, there is reasonable agreement among crowd members regarding their consensual norms and standards, as well as the reputations of various members within and across groups. Not all individuals become part of a crowd, whether by rejection or choice, between 10 and 40% of adolescents are not crowd members (Brown & Klute, 2003). Longitudinal data suggest that high-quality friendships, social inclusion, and positive engagement in school-based and extracurricular social activities are the critical protective aspects of social engagement in adolescence, rather than a specific crowd affiliation or social standing. Social isolation, peer victimization, and deviant peer affiliation signal social risk.

IMPLICATIONS FOR SOCIAL SKILL ASSESSMENT

Assessing a child's social competence requires a multifaceted approach at any age (Bierman, 2004). Children experiencing significant social maladjustment may show behavioral excesses or deficits, affective and motivational features, and social-cognitive deficits or biases. In addition, a child's social success is not determined by these features alone but also by the nature of the social context, peer expectations and responses. Developmental changes affect all of these domains of functioning, thereby fundamentally influencing social skills across the preschool, middle childhood, and adolescent years.

Progressing Social Challenges and Transformations

Preschool Years
- Core skills: Prosocial initiation, cooperative play, inhibiting aggression
- Peer context: Dyadic/small group fantasy and constructive play
- Social challenges: Initiating interactions, gaining peer acceptance

Grade-School Years
- Core skills: Add following rules/fair play, self-control, friendship support
- Peer context: Dyadic/small group friendships, large-group competitive and cooperative play
- Social challenges: Gaining acceptance, avoiding rejection and victimization, forming mutually-supportive close friendships

Adolescence
- Core skills: Add conversation skills, skills for intimate relationships (loyalty, empathy), skills for social decision-making (perspective-taking, problem-solving)
- Peer context: Intimate friendships, interest/activity groups, cliques, and crowds
- Social challenges: Navigating social groups, sustaining intimate friendships, finding social niches, avoiding victimization, responding appropriately to peer influence

In this chapter, we have described the modal changes that occur developmentally in the behavioral and social-cognitive correlates of social competence, as well as the transformations that occur in the structure, organization, and demands of the peer context. One clear implication is that the aspects of social skills targeted for assessment must be adjusted developmentally.

Specifically, in the preschool years, social skills assessment should focus on children's prosocial initiation and cooperative play skills – their capacity to initiate and sustain play interactions and to inhibit high rates of aggression (occasional squabbles and aggressive responses to conflict are still within norms). The capacity to join with others comfortably in play, take turns, respond to peer comments and requests, and enjoy being with peers represent the core skills associated with preschool social competence. Emotional understanding (e.g., recognizing and labeling basic feelings) and knowledge of prosocial strategies for resolving conflicts (particularly strategies for sharing toys and materials, and handling disagreements in play) support competent social behavior in preschool. Hence, these behaviors and social-cognitive skills should be targeted in assessments. Teacher ratings, behavioral observations, and parent ratings are useful assessment strategies.

In the grade school years, the importance of prosocial skills for peer acceptance continues. In addition, self-regulation and aggression control become increasingly important. Grade school games often require an understanding of and adherence to rules, routines, and principles of fair play, so the capacity to attend to and comply with these principles takes center stage in peer interactions. Assessments of social skills need to broaden to cover the domains of emotion regulation and frustration tolerance, attention and concentration skills, aggression control (covert and relational), as well as prosocial skills. Assessments of the positive dimensions of peer relations should include the number and quality of close friendships a child has, as well as their status in the school peer group (acceptance and rejection). In addition, an assessment of peer victimization becomes important, as some children are targeted for peer harassment during the grade school years. As children move into formal schooling, parents are typically much less useful reporters of their social behavior and interaction skills than teachers, who are able to observe them regularly in a peer context. Teachers continue to be good sources of information about a child's social behavior, and peer assessments (sociometric nominations and ratings) begin to provide unique information about social standing that complements teachers' behavioral descriptions. Self-reports, particularly of the qualitative features of a child's friendship (the degree of support and closeness they feel in their friendships), loneliness, and victimization are useful indices of

a child's social experiences and perceptions. Self-reports do not replace teacher and peer-ratings; however, as self-reports and other reports of these dimensions of social adjustment are not highly correlated and hence provide complementary (rather than redundant) sources of information.

Assessments of social competence in adolescence, as in middle childhood, should include behavioral descriptions of functioning in domains of prosocial behavior, emotion regulation and frustration tolerance, attention and concentration skills, and aggression control. These skills continue to provide a basic foundation for effective social interaction as children age. In addition, however, assessments should include a specific focus on conversation skills and decision-making skills. Conversation skills become central to adolescent friendships, and decision-making skills (including appropriate assertiveness and peer resistance skills) support youth as they navigate the difficult challenges of increased autonomy and peer invitations for involvement in risky behaviors. Whereas "perceived popularity" is not an index of social adjustment, peer-reported acceptance (indexing the availability of peer support and affiliation) continues to serve as a marker of social competence. Youth need not be "popular" to be socially competent (indeed, "perceived popular" status carries some risks), but having a solid social niche of accepting peers and friends does reflect social competence and indicate positive social adjustment. As in middle childhood, the assessment of victimization (peer-reported and self-reported), loneliness, and friendship quality are valuable. In addition, assessment should include exposure to and involvement with deviant peers – a risk factor in adolescence.

It is also important to note that the utility of certain assessment methods changes over time. In general, strategies for assessing social skills and peer relations include behavioral observations, teacher ratings, peer ratings, and self ratings. Together, multiple informants provide a better prediction of adjustment than any single informant alone (Bierman & Welsh, 2000). However, during the preschool years, when positive peer relations are determined primarily by the child's ability to join in and play prosocially with others, behavioral observations and teacher ratings provide the most valid basis for assessment of social skills and peer relations, whereas peer and self-ratings are less useful (Ladd & Profilet, 1996). Although preschool children can identify children they like or do not like to play with, their social-cognitive limitations make it difficult for them to describe peer experiences like victimization, which require more complex representations of the peer group. As children get older, their social-cognitive capabilities foster more differentiated and complex social representations. Peer interactions become more complex as well, and more often occur in more private settings, making accurate and representative behavioral observations more difficult. Conversely, peer ratings become more accurate and predictive, both for identifying children experiencing peer difficulties, as well as for describing the nature of those difficulties. By adolescence, peer relations are quite complex and often occur in private settings, outside of the view of teachers or observers. Hence, peer and self-reports become quite important. Self- and peer-ratings of significant social events, such as victimization, are only moderately correlated, but both peer-reported and self-reported victimization contribute to feelings of loneliness, social anxiety, depression, and somatic complaints by the time children reach adolescence (Juvonen et al., 2005). By adolescence, a child's subjective feelings of comfort, intimacy, and support within their social relationships make unique predictions to their mental health and psychological adjustment, along with the nature and quality of their social interactions.

In summary, children's social skills undergo dramatic developmental changes as they progress through the preschool, middle childhood, and adolescent years. These changes require developmental adjustments to both the content and process of social skill assessments.

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Chapter 9
Diversity Considerations in Assessing Social Skills

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DIVERSITY CONSIDERATIONS IN ASSESSING SOCIAL SKILLS

Evidence generally supports a situationally specific view of social skill competence. This perspective contends that behavior is specific to a particular situation, and therefore deficits in social skills are transient depending on the situational context (Meier & Hope, 1998). Therefore, when assessing social skill competency it is important to note that any observed behavior cannot necessarily be generalized from one situation to another. Many factors serve to influence social competence level such as unique environmental characteristics of a certain setting, characteristics of each particular person, and characteristics of those observing the behaviors of that person. This argument is especially relevant when taking into consideration diversity issues within the context of social skills assessment and treatment.

Diversity in psychological assessment and treatment is a vast and complicated issue. The category of diversity encompasses culture, ethnicity, race, sex, gender, sexual orientation,

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general mental, sensory, or physical functional ability, among myriad other variables. Each of these subcategories of peoples carry with them their own issues and experiences that can affect assessment of social skill competency and the subsequent interventions. To further complicate matters, clinicians must be aware of what constitutes a social skill deficit versus a cultural variation in interpersonal style. A certain behavior may appear to be a deficit until the context in which it was learned is considered. For example, a client might fail to make eye contact with the clinician and speak in short, deferential sentences. Lack of eye contact and inability to maintain a long conversation could be construed as a social skills deficit, when in fact this particular person may belong to a cultural group that believes it is polite to act in such a manner with those they consider to be in positions of authority. In more informal social situations, the client may show more consistent eye contact and a more relaxed conversational style.

The initial indicator to a clinician that a social skill deficit may be present in a client typically comes through an observable cue. This observable cue may come from the clinician's subjective impression gained through initial assessment procedures or throughout the course of treatment. If diversity issues, such as gender, ethnicity, or disability, are not considered then there is a possibility that an incorrect inference might be made on the part of the clinician. When attempting to assess social skills in individuals not of the predominant group, two issues can arise to obfuscate the picture: the context of the social actor and the context around the social actor.

Context of the Social Actor

The initial issue, the context of the social actor, raises the question of whose standard of behavior we consider as *skilled*? For example, should a woman of Chinese decent be considered less skilled for behaving in a very reserved manner during a role-played assessment? Should a man from the Cree Indian Nation be rated as lower in social competence because he minimizes direct eye contact with the assessor? The answers are, obviously, negative. Both of these individuals are exhibiting social behaviors that are customary and skilled within their cultural group.

Unfortunately, much of the research on the assessment of social skills has assumed an Anglocentric, heterosexual, male standard, having been conducted by predominantly Anglo-American heterosexual male behavioral scientists using predominantly European American samples. Scoring and norms for many tests place an importance on those social skills and behaviors that are considered important from a "Western" perspective. Indeed, definitions of social competence tend to be value laden and tend to reflect predominately Caucasian American middle-class forms of success in school and society (Ogbu, 1981). It is pertinent then, that if Caucasian American middle-class values and norms are not appropriate for the individual, then the observer must modify the definition and assessment of social skills based on behaviors reflecting that person's appropriate cultural norms. For example, many tests (e.g., Eisler, Hersen, Miller, & Blanchard, 1975) call for ratings of eye contact and gaze duration, and most of these tests equate greater duration with superior skill. Such a test developed with American Indians, on the other hand, would likely reverse the scoring of this measurement as extended eye contact is often seen as disrespectful.

Is the solution to this conundrum found in developing and standardizing a host of assessments for a broad range of subpopulations? Should these subpopulation tests then be adapted for additional dimensions of diversity such as gender and sexual orientation? This would be quite a daunting task, and it might not solve the issue. For example, even for a particular ethnic group living in an American city, would the standard of behavior be considered the same

for a first generation immigrant versus an individual of a family living in that city for multiple generations? Again, the answer seems to be negative. Despite this, one must also recognize the context within which the individual is acting.

Context around the Social Actor

Social interactions occur in a larger cultural context that holds expectations of required social behavior. An individual from Culture A may behave appropriately according to Culture A's customs, but potential for social difficulty can arise when he or she must interact within Culture B. Indeed, if these social behaviors do not facilitate satisfaction of personal goals and motivations (Trower, Bryant, Argyle, & Marziller, 1978) or fulfill needs and maintain relationships (Liberman, 1982), then these social behaviors would not be considered skilled according to accepted definitions. It is therefore important that the assessor carefully considers both the context *from which* the client is interacting and the social context *within which* the client is interacting, as the social expectations of these two contexts may be in conflict.

ASSESSMENT OF SOCIAL SKILLS ACROSS DIVERSE POPULATIONS

Although the assessment tools used to evaluate social skills in diverse populations remain largely the same, several important issues must be considered when assessing individuals using self-report, interview, and behavioral observation. Language difficulties, physical and sensory limitations, cultural mistrust, heterocentric assumptions, and so forth, may interfere with the assessment relationship, measure administration, and resulting data.

Clinical Interview

A clinical interview for social skills deficits (see Chapter 6) can be a helpful tool for determining specific situations in which there is difficulty, the nature of the difficulty, and the client's history of social functioning. Indeed, the clinical interview can be quite useful in localizing the client's social skills in a cultural context by asking about cultural norms. The simple question of whether or not certain skills or behaviors are customary can not only educate the assessors but also help allay client concerns of not being understood (Thompson, Worthington, & Atkinson, 1994). While some clients may not be aware of the norms, or the relationship between their behavior and the norms, simply asking a client about cultural norms may shed light on whether particular behaviors reflect social skill deficits or culturally appropriate behaviors.

When conducting a social history the clinician should try to assess whether the person achieved normal sociodevelopmental milestones, such as friendship quality and quantity or dating history (Meier & Hope, 1998). However, much like current social behavior, a "normal sociodevelopmental milestone" is likewise context specific. The clinician must be aware of what is normal for someone raised in that client's specific culture and under specific circumstances. For example, while friendship quality and quantity, dating history, and involvement in social activities or clubs, are considered important sociodevelopmental milestones, it has been shown that there is a significant gender effect for number and intensity of friendships.

Boys tend to associate with a larger group of people whereas girls tend to have fewer friends, but more personal relationships. Also, boys and girls are socialized very differently. Girls participate in more independent activities whereas boys are more likely to belong to group activities such as team sports that would facilitate more cooperation and teamwork (Crombie, 1988). Consequently, applying the same standard for "normal" or "abnormal" across boys and girls is inappropriate. In addition, certain religions and ethnic groups are more restrictive or permissive about friendships and dating. In the Mormon religion, dating is not allowed until the age of 16, and serious dating or marriage-oriented courtship is not expected to begin until much later (Miller & Goddard, 1992). Many people from Scandinavian countries, on the other hand, hold much more permissive attitudes toward dating and sexual activity. Differences in social development are also apparent in individuals who identify themselves as gay, lesbian, bisexual, or transgendered (GLBT). For example, research has shown that GLBT individuals often do not establish dating relationships until a later age than their heterosexual counterparts (Diamond, 2003). It is pertinent to understand any cultural nuances that might influence what is considered normal.

The amount and type of information disclosed during a clinical interview may also vary across populations. In addition to typically seen variations in mental health seeking and disclosure of psychopathology by individuals of certain backgrounds (e.g., Leong, Wagner, & Tata, 1995), mistrust and limited self-disclosure may also arise if the assessor is of a different background than the client (e.g., Thompson et al., 1994). According to Thompson et al. (1994), disclosure and intimacy improve if the therapist discusses diversity issues and makes an attempt to understand the client's perspective. Finally, even if trust and disclosure are satisfactory, assessors need to be cautious of negatively impacting the assessment relationship by over emphasizing (e.g., fixating on the role of a physical disability on a client's social history) or making inaccurate assumptions about diverse aspects of the client (e.g., assuming heterosexuality by asking a woman whether she currently has a boyfriend or is married).

Finally, language barriers must be considered when interviewing a client. It might be particularly difficult to accurately describe social difficulties they experience if a person is being interviewed in a language that is not his/her native tongue. Many concepts are hard to translate accurately, especially emotions which can be complicated to express even in one's preferred language. Further, no information is available regarding the validity of using translators when conducting clinical interviews of social skills. However, other clinical interviews using translators (e.g., Zayas, Cabassa, Perez, & Howard, 2005) or sign language interpreters (e.g., Steinberg, Lipton, Eckhardt, Goldstein, & Sullivan, 1998) have proven challenging but feasible. It is therefore necessary to go beyond the clinical interview for a complete assessment free of bias or misinterpretation.

Behavioral Observation

Behavioral observation is one of the most useful tools in assessing social functioning of an individual. This can consist of observation in a naturalistic setting, such as while the client is interacting with his/her spouse or partner, observation in a contrived setting in which the client interacts with a confederate, or observation in a controlled setting where the client role-plays a planned situation (Meier & Hope, 1998). With this method, a number of client, role-play partner, and assessor variables have the potential to impinge on the validity of the social skills assessment.

For instance, Calvert (1988) contends that physical attractiveness may confound ratings of social skill. It has been found that physically attractive people may be rated as more socially skilled than less physically attractive people. While some characteristics are

generally universally considered attractive, other aspects of attractiveness are frequently culturally defined. For example, the appearance of men considered attractive by a heterosexual female assessor may differ substantially from the appearance of a man considered attractive by a gay male assessor. Similarly, preferred skin complexion and facial features may vary across racial and ethnic groups. In some cases, people of different racial groups may or may not be considered attractive by members of another group. People with disabilities often report being seen as asexual beings, which although sexuality is not the sole determinant of attractiveness, may impact the individual's attractiveness to the assessor. Physical disability may also make behavioral observation especially difficult. A visually impaired person may not exhibit the full range of facial expressions, and would be less able to react to the physical cues of those with whom they are speaking.

Ethnicity and gender might also influence observer ratings. Several studies have found that teachers of a variety of racial backgrounds rated Caucasian American students higher on social responsibility and social behaviors than African American students when asked to rate the behavior they observe in the classroom. Females were also rated higher than their male counterparts in social responsibility and social behaviors (Granberry, Williamson, Moody, Lethermon, & Michaels, 1983; Mpofu, Thomas, & Chan, 2004). In a similar study, untrained observers showed clear racial bias in ratings of children's behaviors (Lethermon et al., 1984). It is imperative that all observers be well trained and aware of any preexisting biases they may possess.

Studies suggest a modest racial bias interaction between the race of observer and the race of the child being observed in the scoring for some social skills categories, specifically the amount of smiling and overall skill level. This is an important finding given that many researchers rely on the molar overall skill rating as one of the most clinically significant in determining social skill competence. It may be more appropriate to consider smaller context-specific categories than the overall skill level in some cases (Lethermon, Williamson, Moody & Wozniak, 1986). Tone, rate of speech, and physical gesturing would most certainly be affected by ethnicity. Spanish speakers, for instance, speak in a more rapid pace than do English speakers. This could be perceived as agitation or excitement by an observer, when in fact for the Spanish culture it is in the normal range of conversation speed and animation. This would constitute a cultural difference rather than a social skills deficit. Turner, Beidel, and Hersen (1984) examined racial bias in the rating of social skills among 12 schizophrenia patients. Results indicated that African American judges rated all participants as having more appropriate tone of voice than did Caucasian American raters. Caucasian American judges, in comparison to African American judges, tended to rate the length of time as longer for Caucasian American participants than African American participants. Additionally, Caucasian American judges rated African American participants as more compliant than were Caucasian American participants, thus giving evidence to racial bias in the rating of social skills.

Lethermon, et al. (1986) sought to determine whether the race of the rater and child influenced the scoring of social skills using the Social Skills Test for Children (SST-C). Results indicated that bias was present in the rating of social skills. African American raters judged African American children higher in smiling behaviors than did Caucasian American raters. Caucasian American raters, however, judged Caucasian American children on overall skill higher than did African American raters. In general, African American and Caucasian American children were rated differently on a variety of domains: "response latency, appropriate assertion, affective assertion, overall skill, eye contact, body posture, fluency and gestures" (p. 335). An earlier examination of the SST-C by Lethermon et al. (1984) revealed similar results: Caucasian American and African American judges rated stimulus figures differently.

The myriad social contexts from which, and within which, an individual may be inter-acting would make the development and validation of standardized assessment measures for every combination virtually impossible. In contrast, some individualized assessment approaches, such as Kern's (1991) Ideographic Role-Play, may afford the flexibility necessary to sample situations characteristic of both the client's context and the context around the client. For example, if evaluating an Asian bisexual professional man, ideographic scenes could be selected reflecting interactions with his more traditional extended family, interactions within his predominantly European American and heterosexual law firm colleagues, and interactions with potential dating partners that are men and women. This approach would afford the clinician with a much more comprehensive view of skill and skill performance under different contextual demands facing the individual client.

Self-Report and Others' Report

A final method used to round out an assessment of social skills is self-report or others' report measures. Others' report, which generally shows good utility, may be susceptible to the same biases and sources of error when assessing diverse individuals as an assessor's observation of behavior. A teacher, for example, may misperceive the quietness of a child to be indicative of poorer social skill when this may be appropriate and reinforced behavior within his or her culture. In contrast, obtaining others' report from members within that cultural group would provide an extremely rich perspective on how an individual's behaviors and social skills are congruent or incongruent with that group's social norms.

Self-report of social behavior is subject to demand characteristics and biases, distorted recall, limited awareness of social difficulties, lack of situational specificity, or reading ability issues (Norton & Hope, 2001). The presence of social skill deficits is commonly accompanied by the misperception of one's interpersonal interactions (Meier & Hope, 1998). In addition, some questionnaires have been criticized for having an inappropriate reading level for some clients or for using heterocentric language. Indeed, many measures have been developed using educated college populations which do not typically mirror cultural demographic and educational level of the general population. Again, language may also become an issue. If the measure is not written in an individual's native tongue, items may not be correctly interpreted. Likewise, many social skills questionnaires ask about interpersonal relationships with the opposite gender and the same gender. The interpretation of such questions is skewed when administered to a gay, lesbian, or bisexual individual. When using questionnaires for a person of a special population, it is important to use those that have been validated for such use. Unfortunately, few measures have been developed and validated for these circumstances. Finally, even assuming that a self-report measure consists of appropriate items at an appropriate reading level in a client's preferred language, items may vary across, or even within, ethnic or racial groups in terms of item equivalence, functional equivalence, or even scalar equivalence. Although a full discussion of measurement equivalence is well beyond the scope of this chapter, the reader should be aware that similar scores on item-rating scales may not reflect equivalent "amounts" of the construct, items may have different meanings or importance across groups, and scores on a measure may relate differently to other important antecedent, correlate, and outcome variables (For a full review, see Knight & Hill, 1998).

SOCIAL BEHAVIOR COMMON AMONG DIVERSE POPULATIONS

Nonverbal communication is defined as "behavior that transcends verbal or written words" (Herring, 1990, p. 172). It is also used in lieu of language or to relay additional

information (Herring, 1990; Chiang, 1993). Others have elaborately described nonverbal behaviors as "messages to which people attach meaning and . . .symbols derived from body movements, postures, gestures, facial expressions, eye movements, physical appearance, the use of space, the structure of time and other behaviors which vary from culture to culture" (Pitton, Frank, Hunter, & Warring, 1994, pp. 2–3; Samovar & Porter, 1991). But it seems clear that nonverbal communication is certainly culturally determined.

Nonverbal communication also involves interactional distances, or the amount of physical space between two individuals when they are interacting. Hall (1959) first observed differences in interactional distances among various cultures. For example, preferred interactional distances vary by region: individuals from Mediterranean cultures prefer closer contact than individuals from Northern Europe (Little, 1968 as cited in LaFrance & Mayo, 1978). Despite these variations, similarities regarding distance have also been found. Universally, people interact closer in proximity among family and friends than with strangers (LaFrance & Mayo, 1978). Studies have also shown that proximity during interactions not only varies by culture but is also contingent upon setting, topic of discussion, the relationship among participants, and class distinctions (persons from middle socioeconomic class backgrounds have been shown to communicate at greater distances than persons from lower socioeconomic class backgrounds).

In addition to interactional distances, differences in status contribute to different communication styles among people. Appropriate distance, touch and gestures are determined, in part, by status and cultural norms. For example, in the United States, people of higher status speak first, while in many non-Western cultures, people of higher status speak last (LaFrance & Mayo, 1978).

When interpreting gestures it is important to consider the copious culture differences in gestural behavior. When linked with speech, gestures and bodily movements have various meanings within different contexts and situations. Although there are many conventional gestures used interculturally, professionals must be mindful of differences and openly ask for interpretations and meanings associated with gestures when seeing diverse clients. For a review of the importance of gestures in various cultures see *Cross-Cultural Perspectives in Nonverbal Communication* (Poyatos, 1988).

Consequently, given the general limitations and biases in assessing social skills using observation, self-reports and others' reports, and clinical interview, as well as the specific potential sources of inaccuracy when using these methods with people of diverse backgrounds, a comprehensive multi-method strategy is recommended, using tools that afford the greatest flexibility. Self-report measures that have either been translated into different languages or have a more basic reading level may be necessary. Similarly, as noted earlier, behavior observational schemes that allow sufficient freedom to create scenarios relevant to each client's personal contexts are strongly suggested.

While this approach would allow for a multi-contextual assessment within evidence-based assessment measures, many clinicians of various backgrounds are not acutely aware of what is considered common, customary, or appropriate within different populations. Indeed, stereotypical beliefs about typical behaviors of different populations abound and could lead to faulty assumptions about the behavior of the individual being assessed. In light of the variability in social and nonverbal communication among cultural groups, it is important to identify differences that will prevent (or minimize the likelihood of) clinicians and researchers from making inaccurate assumptions and misinterpreting communication styles. Since the particularities of each ethnicity and cultural group are impossible to articulate within the scope of this text, generalizations are posited about the common attributes among several diverse populations. Although generalizations inherently omit cultural distinctions, it is essential to remember that the following attributes are not always applicable in every situation and

to every individual. Individual differences and situational variations should be considered. Indeed, more proximal variables such as acculturation and group/ethnic identity likely exert much greater influence on social skills and their assessment than do simple categorical groupings (Alvidrez, Azocar, & Miranda, 1996). Even so, the vast majority of the research examining social behaviors across diverse groups has relied predominantly on simple group classifications.

Pitton et al. (1993) examined communication patterns among children of various cultural backgrounds from an urban area of a large U.S. city, within a classroom environment in order to enable teachers to effectively and sensitively interact with students of various backgrounds. Their general findings are summarized in Table 9.1. Additional research describing common social interactional styles among diverse populations is presented below.

African American

Almost two decades prior to Pitton and colleagues' (1993) study, Dubner (1972) noticed that Caucasian Americans expected a nod and a verbal cue as indicators of attentiveness. However, African Americans do not always provide such cues. For example, Caucasian Americans both nod and say "hmm" as a sign of listening while African Americans may *either* nod *or* say "hmm" as a response (LaFrance & Mayo, 1978). In the past, the failure to provide expected cues resulted in African Americans being labeled as inattentive (Dubner, 1972).

LaFrance and Mayo (1978) and Pennington (1979) also found that Caucasian Americans engaged in more direct eye contact when speaking than did African Americans. African Americans seemed to look around more while speaking than when listening. The difference is not in the amount of eye contact but when it is given. Thus, African Americans and Caucasian Americans differ in their choice of when to look at the person. Eye contact also appears to be optional for African Americans during active listening, while Caucasian Americans tend to interpret eye contact as an indicator of active listening, particularly in a counseling setting. Sue and Sue (2003) also describe African Americans' eye contact as less direct during listening, but extended while speaking.

Time and speech affect have also been examined. Timelessness is not strictly adhered to by African Americans in comparison to Caucasian Americans, who commonly exhibit time conscientiousness (Pennington, 1979). In addition, Sue and Sue (2003) indicate that African Americans' are affectively expressive and are quick to respond during conversations. Additionally, African Americans may interject during conversation.

Cartledge and Middleton (1996) summarized the communication pattern of African Americans in a school setting. Behavioral style of African American children was described as "High key, animated, interpersonal, confrontational, intense, dynamic and demonstrative" (p. 150). Approach to arguments was explained as being twofold: (1) the style depends on whether opinions need to be communicated or (2) anger needs expression. In reference to African Americans' attitude toward communication, there is a belief that refusal of communication is unallowable, suggesting a propensity to draw others into discourse. Furthermore, eye contact was discovered to be rarely maintained with a teacher in classroom settings, which parallels studies indicating that direct eye contact is minimally provided while listening.

Asian-American

Research has also evaluated social skills and nonverbal communication across Asian countries. In a study of social anxiety, social skills, social adjustment, and self-construal

Table 9.1. Social Characteristics Common Among Diverse Populations (Extrapolated From Pitton et al., 1993)

	African American	Anglo-American	Asian-American	Hispanic/Latino(a)	Native American
Eye Contact	Normally, eye contact is direct when talking, which shows interest. Children, however, primarily do not look directly at authority figures as a sign of respect (particularly when being scolded). As trust increases, children's direct eye contact also increases. During conversations, looking away does not necessarily mean a lack of interest but may more so be a thinking response.	Direct eye contact is preferred as it conveys confidence, respect and interest. Downward cast eyes are associated with disinterest, lack of respect, or timidity.	In a formal situation or upon meeting new people, direct eye contact is considered inappropriate. This type of contact is considered too personal because the eyes reveal hidden emotions. Children will often times have downcast eyes when speaking with adults.	Direct eye contact is acceptable, but for extended periods of time it can be considered disrespectful. Enduring eye contact is appropriate for intimate /private conversations. It is common for children to respectfully gaze downward during conversations with authority figures or when disciplined.	Direct eye contact is considered invasive. It is respectful for children and adults to refrain from directly looking at the speaker, particularly authority figures. Continuous eye contact may be considered impolite, disrespectful, or even a sign of aggression.
Personal Space	Personal space is situationally based. As intensity builds in a conversation, the proximity between people may lessen. Generally, 6–12 inches apart is preferred.	Appropriate distance between individuals is approximately 20–36 inches. Closer proximity is designated for more informal socializing, whereas formal distance can be an indicator of power.	In public, distance greater than an arms length is preferred (closer proximity may produce uneasiness). Close proximity is relegated to family interactions.	During conversations, the distance between Hispanic Americans is six to eight inches closer than between European Americans. Not uncommon for people to stand side-by-side during conservations.	Close proximity is not necessary for conversation. Standing side-by-side is a common stance. Two to three feet apart is typical distance between speaker and listener.

(Continued)

Table 9.1. (Continued)

	African American	Anglo-American	Asian-American	Hispanic/Latino(a)	Native American
Touch	Touch appears to be based on reciprocity. If a teacher touches a child, it is deemed appropriate for the child to touch the teacher. Shoulder, back, and arm are appropriate areas to touch, but head patting may be considered offensive.	Touch is infrequent during conversations. Handshakes and hugging (among females) is deemed acceptable upon meeting. Often times touching carries a sexual undertones for adolescents and adults, thus touching rarely occurs during interactions.	Shaking hands is considered inappropriate in public arenas. Holding hands (between the same or opposite sex) is deemed appropriate only in private settings among friends. Since emotions are infrequently displayed, touch is inappropriate between men and women. Head patting among children may be regarded as impolite, but a slight bow is an appropriate greeting.	Touching during conversation is common, particularly among family and friends. Hugging or kissing is a standard greeting and a touch on the arm or back is typical during conversations with familiar people.	Affection is infrequently exhibited in public, since emotions are kept respectfully hidden. The conversational manner is described as gentle. Hugs between a teacher, student, and children are acceptable and considered signs of encouragement. Gentle handshakes are appropriate, but a firm handshake may be considered disrespectful.
Voice	The vocal patterns within this culture are strong and assertive. A variety of loud tones and volumes are exhibited during intense conversations.	Vocal quality and strength is associated with emotion of the speaker. Inflections and tone are especially pertinent means of communicating emotion.	Vocal diversity to display feelings is often limited due to the belief that emotional expression is inappropriate. Soft voices with minimal variation are used when talking to authority figures. Uncontrolled emotional expressions, such as loud outbursts, are interpreted as rude.	Vocal patterns are often very expressive and filled with a variety of tones and intensities. Vocal emotional expression is used to reinforce the dialogue.	Low and soft tones are typical within the culture. Emotions are not displayed before strangers and words are often selectively chosen.

	African American	Anglo-American	Asian-American	Hispanic/Latino(a)	Native American
Gestures	Dialogue is reinforced by emphatic gestures. The gestures utilized are similar to European Americans and are sometimes dramatic. Often the posture is relaxed during conversations, but such a pose coupled with a lowered head may indicate disinterest at times. However, if one turns away from the speaker, it does not necessarily indicate unconcern.	Gestures are utilized to reinforce conversation. Open gestures convey interest (i.e., leaning forward), while closed gestures convey disinterest (slouching). During conversations, "speaking with their hands" is apparent, and thus more gestures signify more emotion-laden subject matter.	Waving or signaling to "come here" is refrained from due to associations with beckoning children or animals. Hand movements are often limited during conversations (except when telling stories).	When expressing strong emotion, many gestures are commonly used. When conversing intraculturally, more gestures are used.	Gestures are decisively utilized within conversations. Body movements are rarely used in discourse as they may possibly reveal emotional reactions.
Facial Expression	Facial expressions within the culture are similar to European Americans; however, all emotions are revealed through facial expressions. More empathic expressions are reserved for family, friends and intracultural interactions. Negative emotions expressed facially are acceptable.	Facial expressions display emotion associated with conversations. It is more acceptable to display positive (i.e., smiles), than negative (i.e., frowns) facial expressions. Facial expressions also are used to understand the content and meaning of conversations.	Emotional responses are rarely displayed. Smiles can be used to disguise negative emotions.	Facial expressions are utilized to convey the emotions associated with the topic of discussion as well as punctuate the emotion-laden contexts of conversations.	Facially expressed emotions are uncommon. Traditionally, emotions are kept hidden, and therefore facial expressions are restricted.

(Continued)

Table 9.1. (Continued)

	African American	Anglo-American	Asian-American	Hispanic/Latino(a)	Native American
Engaging Behaviors	Spontaneity is common and interruptions can be appropriate among family and friends, but during formal communication it is considered impolite. Age determines the length and frequency of conversations, with the elderly given authority and respect in conversations.	It is acceptable for anyone to generate or initiate conversation. Most consider it rude to interrupt others while speaking. Listening is often conveyed through direct eye contact. Pauses and vocal inflections signal moments in which interjections are allowable.	Deference is usually displayed within the culture, and so initiation of conversations is rare. Children do not interrupt adults and precedence is given to the elderly. Children may feel uncomfortable being assertive and direct.	Children and adults alike are free to initiate conversations. Interruptions are viewed as eagerness and are not considered impolite.	Turn taking is appropriate and interruptions are impolite. Children neither initiate nor dominate conversations. Elders are respectfully listened to as well as authority figures. Listening with one's eyes closed is a sign of attentiveness, and achievements are withheld from conversations because boasting is considered rude.
Time	Many within the culture follow the mainstream notion of time, but in general, time is considered flexible and adhered to less stringently in comparison to European Americans.	Time is valued and importance is placed on adherence to schedules. Prompt completion of task is imperative. Tardiness or stalling is considered rude.	Within the culture, time is not constrained or restrictive. Punctuality is not a concern or worry, unless pertinent issues arise concerning the family.	Time is present focused rather than future oriented, thus the concept of time is very flexible. Tardiness is not negatively viewed.	Time is flexible and focused on the present rather than the future. The needs of people take priority over schedules.

in Chinese and American college students, Chinese and American students were judged as exhibiting different social skill abilities by raters (Ingman, 1999). Americans were rated as displaying better social skills than were Chinese students, but these results were explained as being due to cultural differences. Ingman states, "Avoiding eye contact is perceived as a sign of respect for some Chinese people, and not a sign of avoidance or inattention as it is for many American people. In addition, Chinese language has a different tonal pattern than American language, and as a result Chinese people may not vary their vocal tone as much" (p. 34).

Argyle (1975) examined bodily communication among Asian cultures. In instances outside of the family, bodily contact was found to be rare in India, China, and Japan. Shun-Chiu (1997) explains that in China "embracing is an intimate act which normally would only occur either in strict privacy or when kinsfolk gather together in deep sorrow, seeking consolation, whereas these days the young generation under western influence may disregard this traditional self restraint" (p. 75).

In Japan, Argyle (1975) reports that emotions, especially negative emotions, were infrequently displayed and eye contact was typically avoided. Facial expressions appeared to be stoic in public and a "faint smile" was exhibited privately among friends and family (p. 89). In conversations, smiling and laughing are interchangeably used to divert from displaying negative affect or to fill long silences. During conversations, Asian Americans also tend to speak softly, and emotional expressions are discreet (Sue & Sue, 2003).

Hasada (1997) also assessed nonverbal communication in Japan. Verbal communication is less relied upon within the Japanese culture than in American culture, and thus, nonverbal cues are readily used. Furthermore, direct eye contact is typically avoided. Direct eye contact produces discomfort and diverges from the traditional custom of bowing/lowering of one's head in which eyes are cast downward. Thus, avoiding eye contact is a sign of respect (Hasada). Clinicians should practice caution in misinterpreting lack of eye contact as "shyness" and be aware that constant/direct eye contact with Japanese clients may be interpreted as "intrusive" (Hasada, p. 87). Sue and Sue (2003) also indicate that Asian Americans tend to exhibit decreased eye contact while listening and when talking to individuals higher in status.

Gestures are subtle rather than overt within the Japanese culture (Argyle, 1975; Hasada, 1997). The gesture of widening eyes implies "rudeness" within the Japanese culture whereas in American culture it conveys the notion of "caution" or "trying to see more information" (Hasada, p. 87). Emotional regulation is highly valued within the Japanese culture as well. Displaying emotional reactions, such as crying may be negatively viewed as a sign of weakness. Smiling, on the other hand, can convey: agreeableness, powerlessness, and be used to conceal negative emotions. During uncomfortable situations/silences smiling can be used to fill the silence or alleviate anxiety (Hasada; Hall, 1980).

In Japan, silence is sacred and viewed as a virtue as influenced by the Zen Buddhism philosophy (Argyle, 1975; Morsbach, 1988; Poyatos, 1998). True feelings are hidden in public in order to suppress such feelings as anxiety (Morsbach) and Japanese Americans may appear "self-restrained" (Ogawa, 1979, p. 334). Although Japanese individuals are viewed as quiet, restraint is exercised as a means to protect the feelings of others (Ogawa). Silence can also be used to conceal reactions to an unpleasant event (Morsbach).

Hispanic/Latino(a)

Hall (1988) observed Hispanic Americans in New Mexico and reported that individuals were not restricted or guided by clocks and schedules in comparison to Caucasian Americans. Time fluidity was also observed in Latin American cultures (Hall, 1980). Baxter

(1970) observed Mexicans, Caucasian Americans, and African Americans in the Houston zoo in order to determine differences in interpersonal space. Results indicated that Mexicans stood closest to each other, followed by Caucasian Americans, and then African Americans. Overall, Mexicans significantly interacted in closer proximity than all other ethnicities. Mexican participants were also observed touching each other frequently, such as holding hands, and putting their arms around each other's neck or waist. Similarly, Hall (1980) observed that interactions among individuals in Latin America were within a closer proximity than what is exhibited in American cultures.

Similar to Asian Americans, Hispanic Americans tend to have a low tone of voice, display less eye contact when listening than when speaking, and may have an indirect manner of expression (Sue & Sue, 2003).

Johnson and Lindsey (2001) investigated perceptions of communication competency among Caucasian Americans, Hispanic Americans, Mexicans, Chileans, and Spaniards. Caucasian Americans and Hispanic Americans were found to have similar perceptions of appropriate nonverbal communication such as greeting individuals with a kiss, head nodding, and posture. Mexicans, Chileans, and Spaniards' perceptions of nonverbal competence were more similar to each other when compared to Caucasian Americans and Hispanic Americans. Greeting with a kiss was more important for Mexicans, Chileans, and Spaniards, than Caucasian Americans and Hispanic Americans. Head nodding was reported as being more important for Caucasian and Hispanic Americans than for Mexicans, Chileans and Spaniards. However, caution should be exercised when generalizing across Hispanic cultures and countries when examining nonverbal communication and competence as intracultural (i.e. non-American Hispanic culture) differences exist.

Middle-Eastern

Few studies have examined the social and nonverbal communication skills of Middle-Eastern cultures. In one study, Argyle (1975), examined Arabian culture regarding nonverbal communication and bodily contact. Generally, emotional expression was moderated, but emotional displays were considered acceptable. Eye contact was deemed important and a "mutual gaze" was preferred (Argyle, p. 94). When greeting individuals in public, bodily contact was exchanged freely when greeting individuals, but traditionally, females are not touched in public contexts. During conversations, there is a preference for close proximity between speakers and listeners. Argyle notes that "Arabs speak more loudly and are thought to be shouting by Europeans or Americans" (p. 94; Poyatos, 1988). In reference to time, it is considered more fluid in Iran and Afghanistan in comparison to American culture (Hall, 1980).

Native American

Chiang (1993) interviewed six professional Native American Indians, representing Cherokee, Navajo, and Hopi nations, about nonverbal behaviors. The findings parallel those of Pitton and colleagues (1993). Native American interviewees were observed regarding eye contact, facial expression, distance and time. In reference to eye contact, the participants generally looked at their hands or at the table during the interview. As for facial affect, participants lacked overt emotional expression, but movement was reportedly noticeable around the eyes and the lower portion of the face. In response to questions about personal space, participants indicated that distance among people varied by culture and tribe. Some reported that physical touch was inappropriate and others indicated that touch was inappropriate in

particular settings (i.e., public). In general, distance of about an arms length was considered appropriate. In relation to time, participants reported that they could adapt to Western culture's concept of time, but often they used "nature's time" when interacting among other Indians, such as using "the senses to tell time…go[ing] by rhythm…us[ing] the positions of the sun" (Chiang, p. 6). Hall (1980, 1983) also noticed differences in the concept of time among the Sioux, Pueblo, Navajo, Quiché, and Hopi tribes, in which the concept of time was more fluid and flexible in comparison to Caucasian Americans. For example, the Sioux Indians do not have a word for *late* or *waiting*.

Furthermore, participants in the Chiang (1993) study reported that firm handshakes, prolonged eye contact and verbal directness were viewed as taboo among Native American Indians. Sue and Sue (2003) describe communication styles of Native Americans as characterized by a slow and soft tone of voice, indirect eye contact while speaking and listening, rare conversational interjections, and nonemotional expressions.

Among Native Americans, words are carefully chosen prior to engaging in conversations (Lee & Cartledge, 1996). In classroom settings, Native Americans may be labeled as shy or nonparticipatory due to their passive interactional approach (Lee & Cartledge). Powless and Elliott (1993) also found that the passive approach of Native American children was deemed an indicator of poor social skills by non-Native American raters. Native American children were rated as exhibiting less social skills than Caucasian American children, particularly on assertiveness, thus resulting in inaccurate assessment of social skills.

According to Lee and Cartledge (1996) the following generalizations are applicable to Native American children: (1) indirect eye contact is prevalent; (2) customs mandate that emotional displays are inappropriate, and children learn to exhibit expressionless faces, thus lack of facial expression should not be interpreted negatively; (3) bodily contact in public is rare and gentle handshakes and pats on the back are appropriate and respectful; (4) gestures are uncommonly used to express emotion but are traditionally used to reinforce the main ideas of conversation; (5) appropriate personal space is 2–3 ft apart from listener and speaker and conversations often take place side to side instead of facing each other directly; (6) time is regarded on a continuum with no static start or stop point; (7) speech patterns are low in tone, especially in the presence of authority figures; and (8) interruptions are considered rude, while pauses indicate careful reflection and selection of words.

Gay/Lesbian/Bisexual/Transgendered

Little research has been conducted studying social skills in GLBT individuals. The majority of extant research on social skills with GLBT individuals focuses on assertiveness training to reduce the risk of HIV infection (i.e., Kelly, St. Lawrence, Betts, Brasfield, & Hood, 1990). To further our understanding of the unique issues when working with GLBT individuals, it is imperative that more research is conducted on how social skills assessments and training can be adapted to be culturally sensitive to GLBT individuals. For more information on working with GLBT individuals please see Martell, Safren, and Prince (2004) or Pachankis and Goldfried (2004).

While the majority of GLBT individuals present with social skills similar to their heterosexual counterparts, there are a few important differences to keep in mind while conducting social skills assessment with GLBT individuals. Given that sexual orientation or gender identity is not immediately obvious, it is important for the assessor to avoid the assumption that the client is heterosexual. As discussed at the beginning of this chapter, social skills must be localized within the individual's social environment. Appropriate social skills may look different for an individual living in rural Nebraska compared to an individual living in

San Francisco. In certain contexts, GLBT individuals still risk social, occupational, or even physical harm (Herek, 1998). Therefore, context becomes particularly important in assessing social skills. Likewise, GLBT individuals may or may not present with stereotypically feminine or masculine behaviors. These behaviors may be culturally appropriate and would not necessarily represent social skills deficits. In general, GLBT individuals establish dating relationships at later ages than their heterosexual peers (Diamond, 2003), which may result in a delay in the development of appropriate relationship skills (Pachankis & Goldfried, 2004). Additionally, social and potential dating circles are often smaller for GLBT individuals than for their heterosexual counterparts (Martell et al., 2004).

The context becomes especially important when working with transgender individuals. Transgender clients may seek services prior to, during, or after their transition from one gender to another. Since many social skills vary to some extent depending on the gender of the individual, it becomes critical for therapists to understand what gender their client is expressing during the targeted social interaction. For many transgender individuals, it is important to them that they "pass" or are perceived by others as the gender that they express. Gender perception depends largely on the verbal and nonverbal behaviors that the individual exhibits. Therefore, assessment of social skills should consider the verbal and nonverbal behaviors such as posture, mannerisms, and voice inflection that are consistent with the gender the client wants to portray.

One of the unique difficulties in assessing social skills in GLBT individuals is the gendered language used in many of the social skills measures. For example, questions that specify gender or that use the term "married" should be avoided (Martell & Land, 2002), as these questions may be misunderstood by a client as being homophobic or heterocentrist (Martell et al., 2004). The culturally sensitive assessor can review assessment measures before presenting them to a client in order to change any potentially insensitive wording. For example, the word "husband" can be changed to "spouse" or "partner." Likewise, questions about behaviors "when talking to members of the opposite sex" can be changed to "when talking to individuals you find attractive." In some situations, changing the language may change the meaning of the question, therefore, questions may need to be tailored on a case-by-case basis.

CONCLUSIONS AND CLINICAL RECOMMENDATIONS

Assessment of social skills and appropriate nonverbal communication is dependent upon several factors: culture, setting, and situation. It is therefore essential for clinicians and researchers to recognize the influence of these factors when utilizing frameworks, generating theoretical conceptualizations of behavior and when counseling individuals. Although commonalities exist across cultures, variation in body contact, gestures, facial expressions, eye contact, the use of space, and the structure of time deserve inclusion in the assessment of social skills. Bias in assessment has been noted (Lethermon et al., 1984, 1986; Turner et al., 1984) when appraising social skills among inpatient clients and children. However, with increased awareness of intracultural and intercultural conceptualizations of appropriate social skill, practitioners will be better able to develop culturally sensitive interpretations of nonverbal and verbal communication styles when assessing diverse populations.

Given the potential for cultural bias or mismeasurement, and the possible negative consequences of such mismeasurement, it is imperative that evaluations of social skills in diverse populations employ multiple methods and informants. Perhaps most important, the assessor should seek consultation from experts of the client's background in order maximize the validity of the results. In addition to utilizing multiple methods and consulting various informants, clinicians must be aware of their own stereotypes and biases towards different cultural groups.

Thorough examination of one's own experience with intercultural interactions as well as one's stereotypes and biases is important as they may influence conceptualizations and assessments of social skills. However, it should also be recognized that experts from various backgrounds will not be able to speak to the individual client's specific cultural, generational, social, or personal background, and therefore may only be able to provide generalizations – appropriate or otherwise. Therefore, when possible, assessors should seek permission to obtain permission to interview individuals closer to the specific client, such as parents and/or family members, to develop a better determination of the appropriateness or cultural acceptability of various social behaviors. Finally, clinicians should also consider using utilizing more flexible and individualizable assessment techniques, such as Kern's (1991) Ideographic Role-Play, as a means of ascertaining an individual's performance in various social contexts and domains. Evaluating excerpts of an individual's performance in pertinent domains of functioning, as suggested by Kern, may enable clinicians to develop global and specific assessments of their social skill. Thus, implementing the above suggestions may help clinicians and researchers better assess social skills among diverse groups.

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Chapter 10
Anger and Aggression

John E. Lochman, Tammy Barry, Nicole Powell, and Laura Young

Problems with anger and aggression represent two of the most common causes for referral for mental health treatment, often because of the implications these problems have on social relationships. In some cases the aggressive and antisocial behavior leads to social rejection by the people around them; in some cases the social rejection from others triggers escalating anger and aggression, and in many cases the relation between aggression and social rejection is bidirectional. Because of their difficulties with social relationships, it is critically important to understand the nature of the social skills of angry and aggressive individuals. In this chapter we will discuss normal and problematic development of anger and aggression in youth and adults and will review the types of social-cognitive and social skill deficits that are apparent for aggressive individuals. The chapter will then review assessment and treatment issues with this population, with a particular emphasis on measures specifically tailored to provide information that can be useful in intervention.

ANGER AND AGGRESSION

Angry and aggressive behaviors are common to all individuals, representing clinically significant problems only when frequent and severe enough to disrupt a family's or school's functioning, or when the behavior leads to serious antisocial behavior, delinquency, or substance abuse (Lochman, Powell, Clanton, & McElroy, 2006). Anger is often, but not always, a precursor to aggression and externalizing behaviors in children (e.g., Bohnert, Crnic, & Lim, 2003) but can also be related to internalizing problems (Eisenberg et al., 2005).

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Anger

As defined by Kassinove and Tafrate (2006) anger is a "negative, phenomenological feeling state that motivates desires for actions, usually against others, that aim to warn, intimidate, control, or attack, or gain retribution" (p. 4). Associated features of anger include characteristic cognitive distortions (e.g., blaming), physiological changes (e.g., increased heart rate), and distinctive behavioral displays (e.g., scowling, raised voice). Anger is a commonly occurring experience, with adults in the general population reporting anger several times a week to several times per day (Averill, 1983). The types of incidents that tend to trigger an anger response are broad in scope and include both physical threats and psychological threats, or threats to a person's pride or dignity. Misdeeds in the context of interpersonal relations are most frequently cited as the cause of anger, and angry feelings are most often directed toward friends and loved ones, rather than people who are disliked (e.g., Kassinove, Sukhudolsky, Tsytsarev, & Solovyova, 1997).

Anger can be a developmentally appropriate and adaptive reaction to threatening stimuli and can motivate the individual to take action against the threat. However, anger is an emotion that is often difficult to control due to the intense physiological reactions involved in the fight-or-flight response which is triggered to protect oneself against the instigating situation (Lazarus, 1991). The ability to manage anger has important implications across multiple indicators of adjustment, including interpersonal relationships, self-esteem, and health. Despite the serious potential negative implications of anger problems, current diagnostic systems do not include a specific category in which anger is the essential feature, though anger is included as a diagnostic criterion for several Axis I (e.g., PTSD) and Axis II (e.g., Borderline Personality Disorder) disorders (American Psychiatric Association [APA], 2000). Research is currently being conducted on a proposed system for classifying anger-specific disorders which may be included in future diagnostic systems (Eckhardt & Deffenbacher, 1995; Kassinove & Tafrate, 2006).

Though the tendency to be aroused to anger appears to be similar in both genders, men and women may differ in the ways they express and cope with anger, likely due to powerful gender-specific socialization processes. Western cultural norms promote suppression of anger in females, while expression of anger may be tolerated or even encouraged in males. Women also report that they feel their negative emotions more intensely and for a longer duration than do men (Fischer & Manstead, 2000). To manage angry feelings, women may be more likely to talk about their anger and may use a broader repertoire of anger management strategies (Thomas, 2006).

Anger across development. Various factors are involved in the development of anger across the life span, including socialization processes and individual temperament. While anger may be present in very young infants, parents tend to be tolerant of angry displays until children are perceived as autonomous, which usually coincides with the onset of locomotion (Campos, Kermoian, & Zumbahlen, 1992). At this point, parents begin to use socialization strategies such as ignoring, distraction, and punishment to discourage anger.

Beginning in the preschool years, peers become important in the socialization of anger, as children increasingly recognize the need to regulate their emotions and express anger constructively in accordance with peer group norms. By the time they reach elementary school age, children have generally developed a sophisticated understanding of the types of emotional displays that are appropriate and functional in a given context (Shipman, Zeman, Nesin, & Fitzgerald, 2003), are better able to accurately identify the intentions of another's behavior, and are more likely to verbalize or facially display their anger rather than crying, sulking, or acting out aggressively. With age, children become increasingly less likely to engage in expressive displays of anger as they come to recognize that their ability to maintain

emotional control is important to their social functioning (Underwood, Coie, & Herbsman, 1992). Children who do not learn to control their anger are at risk for rejection and victimization by peers (Eisenberg et al., 1997).

Anger is also influenced by temperamental factors (e.g., negative emotionality, reactivity, regulation ability), and the adjustment of temperamentally "anger-prone" children appears to be influenced by environmental factors such as parent support and exposure to angry situations. See Lemerise and Dodge (in press) for an excellent review of the development of anger in children.

Change in the experience and expression of anger continues through adolescence and into adulthood. With increasing age, individuals report declining frequency and intensity of anger (e.g., Birditt & Fingerman, 2003; Schieman, 1999) and improvements in their ability to manage angry feelings (e.g., Birditt & Fingerman, 2005).

Aggression

Large-scale longitudinal and cross-sectional studies have demonstrated that aggressive behaviors in normally developing youth follow a declining trend with age during childhood and adolescence and into adulthood (e.g., Bongers, Koot, van der Ende, & Verhulst, 2004). At any given point in childhood, boys display higher rates of aggressive behavior than girls, and when children are screened for problems with overt aggression in elementary school, boys display twice as much aggression as girls.

Types of aggression. Aggression is generally defined as a behavioral act that results in harming or hurting others. However, there are numerous types of aggression depending on the intentions of the aggressor and the situation that stimulated the aggressive response. Because aggressive behavior and treatment of aggression varies greatly according to the intentions and conditions surrounding the aggression, it is typically categorized according to the different types. Aggression is commonly viewed as being either proactive or reactive; overt (assault) or covert (theft); or physical, verbal, or relational. Girls may be more likely to engage in acts of relational aggression, which cause harm by damaging relationships or threatening to do so (e.g., spreading rumors, social exclusion; Crick & Grotpeter, 1995).

Individuals engaging in proactive aggression typically use aggression to meet a goal. Conversely, reactively aggressive individuals react negatively to perceived or actual threats, are easily irritated and provoked, and are not trying to meet social goals through their impulsive aggressive behavior. Reactive aggression, which is characterized by "hot-blooded" anger and is more emotionally driven, is likely to occur with visible displays of anger, while proactive aggression, which is more calculated and "cold-blooded," is accompanied by lower levels of simmering anger or by no anger at all (Lochman et al., 2006). Reactive and proactive aggression also have differential relations to an individual's social skills and social relations. In terms of peer relations, reactive aggression is associated with peer rejection and peer victimization, while proactive aggression is not (Dodge, Lochman, Harnish, Bates, & Pettit, 1997). In contrast, proactive aggression is related to leadership skills and a sense of humor (Dodge & Coie, 1987).

Diagnosed disorders and later sequelae. Aggressive elementary school children who show pervasive symptoms in a variety of settings (e.g., home, school, community) and who develop "versatile" forms of antisocial behavior, including both overt (assaults, direct threats) and covert (theft) behaviors by early to mid-adolescence, are at risk for a wide range of negative outcomes in adolescence including truancy and school dropout, substance use, early teenage parenthood, delinquency, and police arrests (Lochman & Wayland, 1994; Risi, Gerhardstein, & Kistner, 2003). Along this developmental trajectory, aggressive behavior can

be associated with Oppositional Defiant Disorder (ODD) and Conduct Disorder (CD; Loeber, 1990). CD symptoms consist of aggressive conduct that threatens physical harm to other people or animals or nonaggressive conduct that causes property loss or damage, deceitfulness and theft, and serious violations of rules. These serious conduct problems are differentiated from ODD which represents a recurrent pattern of defiant and disobedient behavior. Prevalence rates for ODD range from 2 to 16%, with more males than females being diagnosed before puberty and approximately equal gender rates thereafter (APA, 2000). Rates of CD are estimated to be in the range of 6–16% for boys and 2–9% for girls (APA, 2000).

The DSM-IV (APA, 2000) delineates two types of CD: Child-Onset Type, in which symptoms are present prior to age 10, and Adolescent-Onset Type, in which symptoms do not emerge until after age 10. Children classified as Childhood-Onset type are typically more aggressive with more behavior problems than children classified as Adolescent-Onset Type. Childhood-Onset CD is also associated with prolonged aggressive and antisocial behavior into adulthood, and is often a precursor of adult Antisocial Personality Disorder (APD; Myers, Stewart, & Brown, 1998). It is estimated that approximately half of children with CD develop significant APD symptomatology.

Childhood-Onset CD youth typically have more difficulty with peer relationships than those diagnosed with Adolescent-Onset CD and are often actively rejected by their peers. The combination of peer rejection and aggression are additive risk markers for subsequent maladjusted behavior (Coie, Lochman, Terry, & Hyman, 1992). Conversely, children classified as Adolescent-Onset Type typically display disruptive behaviors, particularly with peers, but do not usually exhibit severe behavior problems or continued conduct problems into adulthood.

SOCIAL SKILLS AND SOCIAL-COGNITIVE DEFICITS IN AGGRESSIVE INDIVIDUALS

Anger and aggression appear to both influence and be influenced by interpersonal relationships, making the social skills and social-cognitive processes associated with anger and aggression important areas of study. The contextual social-cognitive model of anger and aggression (Lochman & Wells, 2002) illustrates how angry reactions become aggressive behaviors. The model proposes that the reactions of aggressive children are due to distortions in their perception and appraisal of events. This model is based largely on research surrounding aggressive children's social information processing (Crick & Dodge, 1994) and forms the framework of many intervention programs with aggressive youth and adults. The social-cognitive model proposes that individuals go through a series of cognitive processes that determine their reaction to a problem situation. The first stage is the appraisal stage, in which the individual encodes incoming social information and interprets the social event and others' intentions. The second stage is the problem solution stage in which one develops a cognitive plan for responding to the perceived threat. The individual then produces his or her actual behavioral response based on these cognitive appraisals.

At the appraisal stage, aggressive individuals have difficulties encoding social information and accurately interpreting social events and intentions. Aggressive children recall fewer relevant cues about events (Coy, Speltz, DeKlyen, & Jones, 2001), rely on fewer cues to interpret events (Matthys, Cuperus, & Van Engeland, 1999), show selective inattention to cues presented earlier in a sequence (Milich & Dodge, 1984), and are likely to attend more readily to hostile cues than neutral ones (Webster-Stratton & Lindsay, 1999). In fact, many aggressive children employ a hostile attribution bias, which leads them to interpret ambiguous situations

as overly hostile (Lochman & Dodge, 1994). This distortion also affects their interpretation of their own behavior, causing them to underperceive the aggressive nature of their own behaviors and overperceive the aggressive nature of others' behaviors (Lochman & Dodge, 1998). This can lead them to attribute excessive external responsibility when interpreting social events.

At the problem solution stage of the social-cognitive model, aggressive children rely on maladaptive solutions, employing fewer competent verbal problem solutions and more direct, aggressive action solutions (Coy et al., 2001; Matthys et al., 1999). Lochman and Dodge (1994) found that this solution preference is driven in part by the expectation that aggressive behaviors will lead to desired outcomes.

Due to these distortions and deficiencies, aggressive children demonstrate fewer appropriate social skills and less accurate social cognitions in interpersonal situations than their nonaggressive counterparts. These deficits often cause aggressive children to develop poor interpersonal relationships, experience peer rejection, and engage in coercive relationships. Aggressive behavior is believed to be stable across developmental periods and to be consistently related to aggressive problem-solving strategies (Keltikangas-Järvinen & Pakaslahti, 1999; Kokko & Pulkkinen, 2005). While these deficits often follow children through their development and into adulthood, implying that later aggression may have its roots in social information processing deficits during childhood and adolescence, less attention has been paid to the cognitive predictors of adult aggression. Many studies argue that persistent aggression is more likely linked to lower IQ and achievement, attention problems, pathological personality characteristics, greater substance abuse, and early progressions along the developmental pathways of conduct disorder or antisocial behavior (Elkins, Iacono, Doyle, & McGue, 1997). Ideally, treatment should be implemented before aggressive behaviors become resistant to change. As such, there is an essential need for social skills training with aggressive children.

SOCIAL SKILLS ASSESSMENT AND TREATMENT FOR ANGRY AND AGGRESSIVE INDIVIDUALS

Special Considerations in Assessment

The social skills deficits and maladaptive behaviors of angry or aggressive individuals require special consideration during assessment and treatment. Angry and aggressive individuals typically show deficits in self-regulation of behavior. Thus, examiners should be aware of the possibility for aggressive or violent behavior during an assessment. The examiner should place his or her chair in such a way as to allow for a clear path to the exit. If either verbal (e.g., angry tone, verbal threats) or nonverbal (e.g., pacing, rapid gestures) signs of imminent violent behavior materialize, the examiner should give the examinee sufficient space and avoid the appearance of aggressive actions (e.g., raising their own voice, making fast movements), as these may aggravate the examinee's aggressive behavior. If the examinee is out of his or her seat, the examiner should gently request that he or she return to the chair, all the while appearing calm and speaking in a normal, unhurried voice. If the examinee becomes excessively agitated by a stressful topic, the examiner should revert to more neutral topics and always be prepared to seek help if these actions fail (Shea, 1988). Particularly for younger clients, and depending on the child's developmental level, reward systems or sticker charts may be useful for encouraging and reinforcing positive behaviors. For the observant

examiner, outbursts that occur during clinical evaluations can provide a rich source of natural information about the examinee's triggers, behavioral reactions, and anger-coping skills.

Assessment of Social-Cognitive Functioning

As reviewed earlier in this chapter, angry and aggressive individuals have been found to display characteristic distortions and deficiencies during the appraisal and problem solution stages of social information processing. Information about an individual's processing at these stages may be very useful in conceptualization and treatment planning, helping to pinpoint specific target areas for intervention. For example, an individual who displays a strong hostile attribution bias is likely to benefit from perspective taking exercises, while problem-solving skills training is likely to help an individual who is unable to produce adaptive solutions to problem situations. Please see Chapter 2 for information on assessment of social-cognitive variables, including a review of relevant measures and evaluation techniques.

Behavioral Social Skills

There is a wide range of behavioral social skills measures, many of which have been standardized to allow normative comparisons. As with many of the other previously reviewed measures, these behavioral social skills measures are not intended exclusively for use with aggressive individuals but can provide important information in the assessment and treatment planning with individuals presenting with aggression.

The *Social Skills Rating System (SSRS; Gresham & Elliott, 1990)* is a nationally standardized series of questionnaires that obtain information on the social behaviors of children and adolescents from teachers, parents, and the children themselves. The measure evaluates a broad range of socially validated behaviors that influence teacher-student relationships, peer acceptance, and academic performance. Items on the SSRS are given both a frequency rating and an importance rating, which is a feature unique to the SSRS.

Norms are available for ages 3–18 (with self-report for grades 3–12) based on a standardization sample of over 4,000 students. Separate norms are available at different developmental levels for girls and boys and for students with and without disabilities. Scales for the SSRS include Social Skills (cooperation, empathy, assertion, self-control, and responsibility), Problem Behaviors (externalizing problems, such as aggressive acts and poor temper control; internalizing problems, such as sadness and anxiety; and hyperactivity, such as fidgeting and impulsive acts), and Academic Competence (estimate of reading and mathematics performance, general cognitive functioning, and motivation and parental support). Both standard scores and percentile ranks are calculated. The SSRS can be used to assess children who have problems with interpersonal skills and behavior, including anger and aggression. It includes a comprehensive picture of social behaviors, as well as detailed diagnostic information, with direct links to intervention.

Three rating forms offer data from multiple informants that observe behavior in multiple settings, with the self-report form allowing reports of covert social behaviors. An Assessment-Intervention Record (AIR) can be used to summarize and integrate the data from different informants so that strengths and weaknesses can be more easily determined and considered in treatment planning. Correlations among the three raters are significantly positively correlated

(Gresham & Elliott, 1990). Both internal consistency and test-retest reliability are moderate to high across the scales. Extensive studies using the SSRS have demonstrated content, construct, and criterion validity for the instrument (Kelley, Reitman, & Noell, 2003).

The *Social Behavior Scales (SBS)* is a system of behavior rating scales for assessing social competence and problem behavior of children and adolescents across informants in school, home, and community settings. The SBS includes the *School Social Behavior Scales, 2nd Edition (SSBS-2; Merrell, 2002)*, which is completed in school settings, and the *Home & Community Social Behavior Scales (HCSBS; Merrell & Caldarella, 2002)*, which is completed in home and community settings.

The SSBS-2 is a 64-item measure that includes two scales: Social Competence and Antisocial Behavior. The Social Competence scale includes the Peer Relations, Self-Management/Compliance, and Academic Behavior subscales. The Antisocial Behavior scale includes the Hostile/Irritable, Antisocial/Aggressive, and Defiant/Disruptive subscales. The SSBS-2 was standardized with a representative, national sample of 2,280 students in kindergarten through 12th grade, allowing raw scores to be converted to standardized *T*-scores and percentile ranks. Internal consistency reliability of the SSBS-2 is 0.94 to 0.98 for the subscales and scales. Test-reliability of the SSBS-2 has been documented in the 0.60 to 0.94 range. The measure also demonstrates good validity (Merrell, 2002).

The HCSBS also includes the broad Social Competence and Antisocial Behavior scales. However, each of these scales includes only two subscales. Specifically, the Social Competence Scale is comprised of the Peer Relations and Self-Management/Compliance subscales, whereas the Antiosocial Behavior scales is comprised of the Antisocial/Aggressive and Defiant/Disruptive subscales. Like its school counterpart, the HCSBS demonstrates good reliability and validity (Merrell & Caldarella, 2002).

The *Social Behavior Assessment Inventory (SBAI)* is a 136-item curriculum measure of performance level of social behaviors exhibited in the classroom. A teacher or related professional rates each positively worded item on a 0 to 3 scale. Items cover four broad areas: Environmental Behavior (e.g., lunchroom manners, not disrupting others), Interpersonal Behavior (e.g., accepting criticism, making conversations), Self-Related Behavior (e.g., accepting consequences, truthfulness), and Task-Related Behavior related to academic performance. The measure is intended to screen for social skills weaknesses in school-related activities. Items are summed and plotted on a grid for reference during treatment planning; however, there are no norms to determine cutoffs. Internal consistency and inter-rater reliability are good. Although somewhat limited, available data support the construct validity of the instrument (Kelley et al., 2003).

Finally, in addition to social skills-specific measures, several omnibus rating scales include a scale tapping into social behavior. For example, both the parent and teacher versions of the *Behavior Assessment System for Children-2nd Edition (BASC-2; Reynolds & Kamphaus, 2005)* include clinical problem scales, one of which measures aggression, as well as adaptive behavior scales, one of which measures adaptive social skills. There are three versions of both the parent and teacher versions of the BASC-2, including preschool (ages 2–5), child (ages 6–11), and adolescent (ages 12–21). Unlike the original version of the BASC, the adolescent version now includes normative data for 19- to 21-year-old college students, thus extending the upper age limit. The measure is normed on a large, representative sample, and reliability and validity data are extensive (Reynolds & Kamphaus, 2005). Raw scores are converted to *T*-scores (with a mean of 50 and a standard deviation of 10) for the clinical and adaptive scales, with high clinical scales and low adaptive scales considered problematic. Use of a measure such as the BASC-2 allows a picture of a child's social functioning within a larger context of varied behaviors. For example, it can be used to determine whether a child or adolescent rated high on aggression also has concurrent low ratings in adaptive social

skills. Likewise, if the adaptive social skills measure is in the at-risk or clinically significant range, data from the clinical scales can provide hypotheses about what may be contributing to these social skills problems (i.e., aggression or other clinical problems, either externalizing or internalizing).

Special Considerations in Intervention

During intervention there are several ways to handle aggressive or angry behavior. The chosen method will depend on the client's developmental level and the imminent risk involved in any escalating anger or aggression. Whitaker (1975) suggests several techniques that still prove effective in handling client anger or aggression. First, the therapist can choose to accept and forgive the anger or aggression. This behavior may serve to diffuse the client's emotions. Second, the therapist can use a more direct method and state a direct, curt command (e.g., "sit down") to provide a counter-attack to the client's emotions. Third, the therapist may choose to "one-up" the client by countering the anger or aggression with a non-aggressive response that prevents the anger or aggression from doing any harm (e.g., simply ignoring the client's angry glares). A fourth method would be to justify the client's anger in the hope that this will reduce the client's guilt surrounding their anger or aggression, as well as weaken the effect of the anger or aggression. A final, and more direct method, would be to handle the client's anger or aggression by directly attacking it with psychological dominance. This mental dominance would defeat the client's anger and indicate that it is something not to be used in session.

Social Skills Intervention

Anger, aggression, and social interactions are interrelated processes. Angry arousal, for example, can disrupt interpersonal relationships directly or through aggressive acts; conversely, problems such as misunderstanding the intentions of another or an inability to resolve conflicts adaptively can lead to anger and aggression. This being the case, anger management, social problem-solving skills, and social skills often represent core components of interventions for angry and aggressive individuals. Anger management strategies seek to assist individuals in reducing their level of arousal, an important first step given that high levels of arousal can disrupt social problem-solving processes by intensifying the flight-or-fight response or interfering with the generation of solutions (Larson & Lochman, 2002). Through instruction in social problem-solving skills the characteristic distortions and deficiencies displayed by angry and aggressive individuals can be addressed and more adaptive skills taught. With active practice, such adaptive skills can become automatic responses during social interactions, replacing angry and aggressive behavior patterns (Matthys & Lochman, 2005).

Problem Solving Skills Training (PSST; Kazdin, Bass, Siegel, & Thomas, 1989) was developed for school-age children who are taught to apply five problem-solving steps through verbal self-prompts which encourage them to engage in appropriate problem-solving thoughts and actions. The five steps include: (1) "What am I supposed to do?" (2) "I have to look at all my possibilities," (3) "I'd better concentrate and focus in," (4) "I need to make a choice," and (5) "I did a good job" or "Oh, I made a mistake" (Kazdin, 2003). Role-playing is utilized to practice skill development in session. Additionally, parents attend Parent Management Training, through which they learn the problem-solving steps, attending behaviors, and provision of contingent praise, all of which they are encouraged to implement at home to help their children further develop and practice their skills. Kazdin et al. (1989) found that PSST led to decreased disruptive behavior and more appropriate behaviors at home and school.

Webster-Stratton and Hammond (1997) found that *Dinosaur School,* the child component within their *Incredible Years* training series, led to decreased conduct problems. Dinosaur School focuses on social skills and problem-solving training with 4- to 7-year-old children through videotape-assisted modeling, role-plays, practice activities, and live therapist feedback. The children are exposed to friendship and communication skills, problem-solving training, anger control, and empathy training. After viewing videotaped vignettes of social situations, therapy groups discuss the video clip and then role-play alternative, more effective ways the characters in the videos could have interacted. This approach allows the children to improve their confidence in social situations, develops their ability to analyze interpersonal situations, and increases their repertoire of appropriate responses. The Parent Training Treatment Programs involved in the *Incredible Years* training series focus on improving parent-child relationships through parent training in interactive play, praise, incentive programs, nonviolent discipline techniques, and ways to teach their children problem-solving skills. The Parent Training Treatment Programs also focus on reducing parental stress and helping improve the child's learning habits. Both the PSST and Dinosaur School show better results when combined with their parent management components.

The *Anger Coping Program* (Lochman, Lampron, Gemmer, & Harris, 1987) and its successor the *Coping Power Program* (Lochman & Wells, 1996), which includes an added parent training component, provide school-based prevention and early intervention for 4th to 6th graders. The child components focus on anger management training through emotional awareness, identification of anger triggers, and use of coping techniques such as relaxation and self-talk to control and reduce angry arousal. The children also learn perspective taking and receive reattribution training. These programs contain a substantial social problem-solving section during which the children learn to consider numerous problem solutions, evaluate each solution, and select the best solution based on consequences. Coping Power also includes training in peer pressure resistance. Aggressive boys in the *Anger Coping Program* demonstrated less aggressive and disruptive behavior as well as higher self-esteem post-treatment than their counterparts in minimal or no-treatment conditions (Lochman, Burch, Curry, & Lampron, 1984). Similarly, aggressive children in the *Coping Power Program* showed less delinquency, substance use, and school behavior problems, with effects mediated by changes in social-cognitive processes (Lochman & Wells, 2002, 2003, 2004).

CONCLUSION

Several conclusions are apparent from the review of this literature on social skills assessment with angry and aggressive individuals. First, assessment of social skills is especially important for life course persistent antisocial individuals, because they are the most likely to have long-term antisocial consequences, have stable difficulties into adulthood, and they are most likely to have associated difficulties in their social relations. Second, there is a need for a comprehensive assessment of individuals' social and social-cognitive skills to assist with intervention planning. The assessment model should coincide with the intervention model. For example, assessments should be provided of the attribution and problem-solving skills that are a primary focus of social-cognitive interventions. Third, the assessment battery for social skills should use multiple sources (self and others) and multiple methods (reports of social behaviors as well as indications of social-cognitive skills).

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Chapter 11
Social Anxiety and Withdrawal

Peter J. Norton

SOCIAL ANXIETY AND WITHDRAWAL

Social anxiety, social withdrawal, and social skills are intertwined, but distinct, constructs that can mutually and independently have a significant impact on social functioning. Comprehensive definitions and descriptions of social skills are provided elsewhere in this volume; however, social anxiety is defined as a fear of negative evaluation by others and low self-confidence when performing or interacting in social situations (Rapee & Heimberg, 1997). In addition, social anxiety may be linked with poorer social-cognitive functioning, such as understanding the mental states of others in social interactions or assuming negative outcomes of social behaviors (Banerjee & Henderson, 2001; Rapee & Spence, 2004). Social anxiety is seen as existing on a continuum of intensity, from the low levels seen in socially gregarious individuals, through the typical anxiety experienced by most in situations such as public speaking, to pathological states including Social Anxiety Disorder, Social Anxiety Disorder (Generalized subtype), and Avoidant Personality Disorder (Holt, Heimberg, & Hope, 1992). Social withdrawal, a related but distinct construct, is described as a tendency to engage in solitary activities and not interact with others, whether due to shyness, social anxiety, or social disinterest (Rubin & Coplan, 2004). Social withdrawal has been implicated as a risk factor for the development of later separation anxiety, social anxiety, and other negative affect syndromes (Prior, Smart, Sanson, & Oberklaid, 2000). Both of these related constructs have historically been implicated as possible causes and consequences of variations in social competence.

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The relationship among social anxiety, social withdrawal, and social competence has undergone extensive investigation, although considerable work remains. The purpose of this chapter is to outline the current state of the research and discuss important areas requiring additional investigation. First, the research examining whether social anxiety and withdrawal are related to social skills is explored, followed by a review of the research examining the relationship between social anxiety/withdrawal and *perceived* social competence. Third, the possible causal and bidirectional pathways by which social skills and social anxiety/withdrawal might impact each other is explored, with an emphasis on evaluating the empirical literature supporting each such pathway. Finally, given the interrelationship between social competence and social anxiety/withdrawal, a review of common empirically supported assessment and treatment methods for social anxiety concludes the chapter.

Social Anxiety, Withdrawal, and Social Skills

The extent to which withdrawal and social anxiety are associated with impaired social performance is unclear, despite being the focus of numerous investigations. In many of these investigations, socially anxious and non-anxious participants engage in a role-played or in vivo social interaction while independent observers make ratings of the participant's performance. For example, Rapee and Lim (1992) found no difference between participants with social anxiety disorder and nonclinical participants on observer ratings of overall social performance during a public speaking task. Similarly, Strahan and Conger (1998) showed no difference in skill performance during a simulated job interview between men scoring higher or lower on a self-report measure of social anxiety, while Clark and Arkowitz (1975) found no differences in observer ratings of social skill among high and low socially anxious men interacting with a female confederate. Cartwright-Hatton and colleagues (Cartwright-Hatton, Hodges, & Porter, 2003; Cartwright-Hatton, Tschernitz, & Gomersall, 2005) reported no skill differences between high and low socially anxious children giving a speech nor any linear relationship between social skill ratings and social anxiety.

In contrast, Norton and Hope (2001a) reported that nonclinical individuals performed better socially, as assessed by independent observers across three different role-played scenarios, than did individuals with dysthymia, who in turn performed better socially than did individuals with social anxiety disorder. Stopa and Clark (1993) also reported that observers rated socially anxious participants as displaying more negative and fewer positive behaviors than either nonclinical or anxious (but not socially anxious) control participants. Coplan, Rubin, Fox, Calkins, and Stewart (1994) reported that less socially withdrawn children performed better than socially withdrawn children on an aggregate of indices reported to represent "poor performance due to wariness and anxiety" (p. 132). Glasgow and Arkowitz (1975) noted that no evidence for skill performance deficits was observed between high and low dating frequency men, but their data did support a difference with high and low dating frequency women. Thompson and Rapee (2002) examined high and low socially anxious women and did note differences in observer ratings of social skills, particularly during highly unstructured interactions.

The reasons for the discrepancies of the results of these investigations are unclear, although a number of factors could be involved. First, as suggested by Glasgow and Arkowitz (1975) and partially supported by Thompson and Rapee (2002), an anxiety-skill relationship may be mediated by gender. Two of the studies showing no relationship between social anxiety and social performance examined only men (Clark & Arkowitz, 1975; Strahan & Conger, 1998) while Glasgow and Arkowitz (1975) who did find an anxiety-performance relationship utilized only women. However, in examining those studies that used participants of both

sexes, no relationship between sex and findings of a performance-anxiety relationship was apparent. For example, of the studies finding such a relationship, Norton and Hope (2001a) had a sample of 60.5% women, but Stopa and Clark (1993) had a sample consisting only of 33.3% women. Conversely, in Rapee and Lim (1992), where no relationship was found, the sample of participants with social phobia consisted of 39.4% women.

Second, the mixed results may relate to the nature of the samples tested. The majority of the studies that found no differences in skill, albeit not all (see Rapee & Lim, 1992), used analogue methodology or nonclinical samples. Indeed, in the Rapee and Lim (1992) study, participants were individuals with social phobia but were recruited for study participation as opposed to clinical treatment. Conversely, Norton and Hope (2001a) and Stopa and Clark (1993) both tested treatment-seeking samples. Consequently, it is possible that a severity/skill deficit relationship might exist but with skill performance becoming poorer only at very high levels of social anxiety.

Thompson and Rapee (1992) also suggested that relationships between social anxiety and social performance may arise in specific situations with different performance demands. They posited that high demand situations would elicit better social skill performances due to the explicit expectations, while unstructured situations without performance demands or constraints might yield poorer performance. They found, similar to Pilkonis (1977), that the social performances of socially anxious participants were rated lower than those of non-anxious controls only on unstructured tasks but not under high demand structured inter-actions. Interestingly, however, Norton and Hope (2001a) evaluated participants across three social tasks, a small public speech, an unstructured conversation, and a structured conversation, but found that the type of social task did not interact with the small anxiety/social performance relationship they found.

Finally, it may simply be that, much like individuals in the general population, some socially anxious individuals have skill or performance deficits while others do not. While this possibility seems simple and intuitive, Mersch, Emmelkamp, Bögels, and van der Sleen (1989) were unable to identify subgroups of individuals with social phobia who responded differentially to social phobia treatments that did or did not include a social skills training component.

Social Anxiety and Perceived Social Competence

Assessment for social skill deficits in social anxiety, if any, is complicated by a tendency for socially anxious individuals to perceive their social performance as much poorer than it actually is, as rated by independent observers. In contrast, non-socially anxious individuals tend to be relatively similar to independent observers in their performance quality estimates. This effect has been demonstrated during public speeches (Norton & Hope, 2001a; Rapee & Lim, 1992), simulated conversations (Norton & Hope, 2001a) or dating situations (Glasgow & Arkowitz, 1975), athletic performance situations (Norton, Hope, & Weeks, 2004), and situations with anxious children (Cartwright-Hatton et al., 2003, 2005). The presence of such a bias limits the utility of self-report with socially anxious populations and underscores the necessity of a multimodal assessment strategy for assessing social skills among socially anxious individuals. According to Hope, Heimberg, and Bruch (1995), however, this bias or exaggeration of poor skill performance among individuals with social anxiety disorder is amenable to treatment and diminishes over the course of cognitive behavioral group therapy. Some treatments for social anxiety disorder, in fact, incorporate a skills training element (e.g., Bijstra & Jackson, 1998; Hayward et al., 2000; Spence, Donovan, & Brechman-Toussaint,

2000; Turner, Beidel, Cooley, Woody, & Messer, 1994), although treatments without this component (e.g., Heimberg, 1991) are also equally highly efficacious.

The Relation of Social Anxiety to Different Social Competencies

While the evidence for biased perceptions of one's own social skills is nearly unequivocal, uncertainty exists regarding the actual presence of skill or performance deficits. Indeed, the extent to which performance deficits, if any, are related to lack of appropriate skills, impaired skill performance, or both, is unclear, although anecdotal reports, case studies, and few empirical papers, would suggest that each of these mechanisms could be involved with different individuals.

Social anxiety and social skills deficits. Although the literature is mixed regarding the presence of skill performance difficulties and social anxiety at a nomothetic level, it does not discount the likelihood of ideographic deficits in skill performance. Indeed, clinical experience suggests that a good number of socially anxious clients show poor social performance in high demand situations, whereas others do not. The nature of the relationship between social skills and social anxiety, however, is less apparent, and may be an important assessment consideration for intervention purposes.

One possible relationship between skills and anxiety would be that poor social skills promote social anxiety. For example, an individual might develop social anxiety because of actual skill deficits that might have been previously embarrassing or negatively evaluated. Indeed, Penn, Hope, Spaulding, and Kucera (1994) suggested that among schizophrenic inpatients, elevated social anxiety may be a function of the magnitude of their social skill deficits. Strachan and Hope (2003), for example, described the treatment of social anxiety disorder in a stabilized schizophrenic patient. According to their case conceptualization, this patient developed significant social anxiety as a result of negative interactions in the community that arose, in large part, as a result of his social skills deficits. Several studies (e.g., Pallanti, Quercioli, & Hollander, 2004) have subsequently noted a high co-occurrence of social anxiety disorder among schizophrenic individuals.

In contrast, it is possible that some individuals may develop social skill deficits due to the presence of social anxiety. An example might be a socially anxious individual who has not had opportunities to learn and practice social skills due to avoidance of such social interactions. Children who are very socially reticent may not receive typical opportunities to engage in and practice age and context appropriate social interactions, thereby leading to delayed or deficient social skill repertoires. Indeed, this possibility was offered by Cartwright-Hatton et al. (2003, 2005), although their data showed no relationship between observer-rated social skills and anxiety.

Third, it is possible that some third variable may influence both the development of social anxiety and social skill deficits. Banerjee and Henderson (2001), for example, noted that more socially anxious children evidenced deficits in their ability to correctly interpret the mental states of others in social interactions. Similarly, Simonian, Beidel, Turner, Berkes, and Long (2001) reported that socially anxious children were less able to identify emotions through facial expressions than were less anxious children. Although diminished social awareness may be a consequence of either social anxiety or social skill deficits, it is equally plausible that social cognitive processing deficits could underlie these difficulties.

Finally, it must be considered that the social skill/social anxiety relationship might exist in a mutually reinforcing relationship. For example, a socially withdrawn child may not engage in social interactions and not develop appropriate social skills. Subsequent

interactions with poor social skills may lead to teasing, rejection, or even simply unsuccessful social encounters, which may thereby increase social anxiety and withdrawal and limit future opportunities to develop appropriate skill bases (see Rubin & Coplan, 2004). This possibility, while intuitively intriguing and theoretically plausible, has not been empirically evaluated and would require extensive longitudinal modeling with appropriate indices of actual and perceived performance to appropriately investigate.

Social anxiety and social skill performance. Although many authors have assumed a relationship between social anxiety and social skill deficits, it may also be that socially anxious individuals can have adequate social skills, but their skill *performance* is impaired by anxiety. Indeed, given our longstanding awareness of arousal-performance relationships (e.g., Hanin, 1980; Yerkes & Dodson, 1908), such a possibility seems quite plausible. Although, to the author's knowledge, little research has specifically been conducted to test this possibility, a reasonable measurement approach could easily examine this hypothesis. Such an assessment could contrast an individual's self-report of how he or she *should* behave in a given social interaction, with actual performance of those skills in role-play with either the assessor or a confederate. Further, the assessor may ask clients to contrast describing or performing how they would behave, with a description or performance of how they believe a very socially skilled individual would behave. These contrasts would assist the assessor in determining the extent skill performance problems are a function of skill deficits, erroneous beliefs about ideal skill performances, or anxiety inhibiting proper skill performance. One measure of social functioning, the Assessment of Interpersonal Problem-Solving Skills (AIPSS; Donahoe et al., 1990), requires clients to identify an interpersonal problem in a video-recorded scene, develop and verbally describe a solution to the problem, and enact the solution, thereby providing an examination of the extent to which deficits are related to a lack of social awareness, a lack of social skills, and/or skill performance difficulties. In addition, some research has explored the extent to which demand characteristics, such as instructions, might impact outcomes (e.g., Higgins, Frisch, & Smith, 1983; Meier & Hope, 1998; Norton & Hope, 2001b; Segrin, 1998). For example, better performance has been associated with more specific instructions, such as "act as you believe a very assertive person would act," than with more general instructions, such as "act as you normally do" (Nelson, Hayes, Felton, & Jarrett, 1985; Nietzel & Bernstein, 1976), suggesting a possible disconnect between skill ability and skill performance among some individuals (Norton & Hope, 2001b).

Social anxiety and impressions of social performance. For some individuals, social anxiety does not directly impact skill presence or performance but does negatively taint the overall quality of the social interaction. For example, intense physical symptoms such as profuse sweating or noticeable trembling might not impact the quality of the social skills being performed but might create a negative social impression among social interactors. Alden and Wallace (1995) assessed self and observer ratings of the degree of visible anxiety exhibited by participants with social anxiety disorder and nonclinical control participants during an unstructured interaction. Although both participants with social anxiety disorder and nonclinical control participants overestimated the visibility of their anxiety in comparison to observer ratings, the degree of overestimation was significantly greater among participants with social anxiety disorder. Alden and Wallace (1995) reported a significant main effect suggesting more visible anxiety among social phobics than nonclinical controls. It is not clear, however, whether this effect is driven by just differences in self-perceptions or by both self and observer perceptions, as Alden and Wallace did not directly assess differences in observer ratings of anxiety between the diagnostic groups. Similar results have been obtained by Cartwright-Hatton et al. (2005) who noted a positive relationship between social anxiety and observer-rated "nervous behaviors" in children, but no relationship between social anxiety and social performance.

Direction of Influence Between Social Anxiety and Social Performance

Further clouding the potential relationship between social anxiety and social skill are questions of causality. It seems theoretically defensible that either or both directions of causality could be involved. Social skills deficits could conceivably promote social anxiety (e.g., anxious because one knows he or she is poorly skilled, ridicule or ostracism from others due to poor skills), social anxiety promoting social skill deficits (i.e., not developing and practicing skills due to anxiety and avoidance) or performance deficits (i.e., too anxious to correctly perform established skills effectively), or a third variable could be promoting both skill deficits and social anxiety. Still, little research has examined these possibilities.

Assessment of Social Anxiety

Put together, the presence of social anxiety clearly obfuscates the assessment of social skills. Elevated social anxiety amplifies the extent to which individuals *perceive* their performance as poor and may possibly create, or result from, social skills deficits or social skill performance difficulties. As a result, proper screening for social anxiety is necessary when conducting an assessment of social skill.

Self-Report questionnaires and interviews. Several brief and well-validated measures of social anxiety are widely available. Most of these measures are well normed across a number of clinical and nonclinical populations. Among the more commonly used adult measures are the Brief Fear of Negative Evaluation scale (BFNE; Leary, 1983), Liebowitz Social Anxiety Scale (LSAS; Liebowitz, 1987), Social Phobia Scale (SPS) and Social Interaction Anxiousness Scale (SIAS; Mattick & Clark, 1998), Social Avoidance and Distress Scale (SADS; Watson & Friend, 1969), and Social Phobia Anxiety Inventory (SPAI; Turner, Beidel, Dancu, & Stanley, 1989; Turner, Beidel, & Dancu, 1996). Diagnostic interviews, such as the Structured Clinical Interview for DSM-IV (SCID-IV; First, Spitzer, Gibbon, & Williams, 1997) or Anxiety Disorders Interview Schedule for DSM-IV (ADIS-IV; Brown, Di Nardo, & Barlow, 1994), may be of benefit as well, although they are fairly lengthy and cumbersome as a simple social anxiety screen.

For the assessment of social anxiety in children and adolescents, the Social Phobia and Anxiety Inventory for Children (SPAI-C; Beidel, Turner, & Morris, 1995, 1998) is one of the most commonly used and well-validated measures, although other measures such as the Liebowitz Social Anxiety Scale for Children and Adolescents (Masia-Warner et al., 2003), Social Anxiety Scale for Children-Revised (SASC-R; La Greca & Stone, 1993), and Social Anxiety Scale for Adolescents (SAS-A; La Greca, 1999) are available. Appropriate diagnostic clinical interviews include the Anxiety Disorders Interview Schedule for Children (ADIS-C; Silverman & Albano, 1996), Diagnostic Interview for Children and Adolescents – Revised (DICA-R; Reich & Welner, 1988), and Pediatric Anxiety Rating Scale (PARS; Research Units on Pediatric Psychopharmacology Anxiety Study Group, 2002).

Readers interested in reprinted copies or more details for these measures are referred to the sister publication, *Practitioners Guide to Empirically Based Measures of Anxiety* (Antony, Orsillo, & Roemer, 2001) or the cited sources. Morris, Hirshfeld-Becker, Henin, and Storch (2004) also present a useful review of developmentally sensitive measures of social anxiety in children.

Self-Monitoring. Self-monitoring may be particularly useful to identify any specific types of social encounters that promote social anxiety, such as heterosocial interactions, public speaking, or speaking with authority figures. Additionally, self-monitoring of social anxiety may be a useful addition to the use of self-monitoring of social performance (see Chapters 6 and 18). This combined approach would aid the clinician in clarifying the relationship between social anxiety and social performance for each individual client (e.g., if performance decrements only occur in the context of elevated levels of state social anxiety). Of course, the aforementioned issue of biased self-ratings of social performance must be considered.

Most commonly, self-monitoring of social anxiety involves daily ratings of anxiety using a 0–100 Subjective Units of Distress Scale rating (SUDS; Wolpe, 1969). For example, Hope, Heimberg, Juster, and Turk (2000) provide very convenient and simple daily monitoring forms using the 0–100 SUDS scales in their cognitive behavioral treatment manual for Social Anxiety Disorder. Daily self-monitoring may not be as useful for identifying relationships between skills and anxiety, however, as they do not provide situational specificity. Alternative self-monitoring approaches could include random time sampling of anxiety, which can be arranged using palmtop computers, PDAs, or cellular telephones/text messaging (see Newman, 1999; Gruber Moran, Roth, & Taylor, 2001). This provides a more complete picture of skill performance, anxiety, and the specific situation in which the skills were enacted, but time sampling does run the risk of missing important social interactions from which self-monitoring data would be desirable. Lastly, the clinician can arrange for clients to make self-ratings of anxiety during or immediately after each social interaction in which they engage. While time consuming, this would provide the most complete analysis of social anxiety and its situational determinants. Given the time-consuming nature of this form of self-monitoring, compliance may be an issue. In addition, clients may omit ratings of certain social interactions due to the belief that the situation is not significant enough for ratings.

Observer report of behavioral assessment. Role-played social interactions are a frequently employed behavioral method for assessing social anxiety. The role-played nature affords the evaluator reasonable control over extraneous factors that could influence the interaction and bias the resulting data, such as varied responses from interactors. Role-played interactions also allow the assessor to obtain self-ratings of state anxiety, observer-ratings of the participant's anxiety, and if video-recorded, molecular indices of anxious behaviors such as eye contact, fidgeting, speech dysfluencies, and so forth. In addition, other relevant information, such as thought content, expectations, and perceived performance can be solicited. Of course, role-played assessments are impacted by potential confounds such as a contrived feeling and/or reactivity to being assessed, as well as the difficulty, personnel, and time necessary to coordinate a role-played assessment.

Perhaps the most common analogue observation scenario used in social anxiety assessment and research is a contrived public speech. According to Holt, Heimberg, Hope, and Liebowitz (1992), public speaking fears are the most commonly endorsed fears among individuals with social anxiety disorder, making this scenario highly likely to elicit social anxiety. Unfortunately, public speaking fears are among the most common fears among the general population (Furmark, Tillfors, Stattin, Ekselius, & Fredrikson, 2000); therefore, this scenario may elicit high levels of anxiety in individuals who are otherwise calm in social encounters. Role-played speeches are frequently conducted as a 3–5 min unprepared speech on a topic familiar to the participant. In some cases, the participant will be given less than 5 min to prepare thoughts on the topic. The speech is then delivered to an audience of confederates who are typically instructed to maintain a neutral expression and refrain from displaying encouraging behaviors. The participant may be instructed to provide a rating of his or her anxiety

throughout the speech when cued or immediately after provide a rating of his or her peak anxiety during the speech.

Perhaps a more appropriate role-played assessment strategy is the structured or unstructured conversation. While this method may feel more contrived than a public speech, past research has documented elevated state anxiety and an amplification of biased perceptions of skill performance (Norton & Hope, 2001a) among participants with social anxiety disorder during this task. Conversely, it is less likely to elicit extreme anxiety from otherwise non-anxious individuals than would a public speech. Finally, such structured or unstructured analogue conversations would allow the practitioner to simultaneously assess state social anxiety, biases in self-perceived skill performance, and actual social skill performance in a more ecologically valid scenario. As discussed in Chapter 18, published and normed tools, such as the Social Skill Behavioral Assessment System (SSBAS; Caballo & Buela, 1988), utilize this analogue scenario in assessing social skills and could easily be modified to include self and observer ratings of state social anxiety.

With adults, in vivo observation of social interactions is rarely employed as a social anxiety assessment because of the myriad confidentiality and logistical difficulties involved (see Chapter 6 for more details). With children and adolescents, however, more opportunities exist for in vivo observation, such as in school, at recess or play, or in the home. Published observation systems have been developed to assess withdrawal and separation anxiety in preschoolers (e.g., Preschool Observation Scale of Anxiety; Glennon & Weisz, 1978; Play Observation Scale; Rubin, 1989) and social anxiety in older children (e.g., Timed Behavior Checklist; Paul, 1966), although these systems are infrequently used. Parents and teachers are also excellent sources of less biased information, as they have more opportunity to observe the child under naturalistic conditions with minimal reactivity effects.

Cognitive assessment. Although infrequently used as a primary tool for assessing social anxiety in general practice, the Emotional Stroop paradigm, a modification of the original Stroop (1935) color-naming task has been employed in several research projects and clinical trials to assess cognitive biases toward social threat cues (Maidenberg, Chen, & Craske, 1996; Mattia, Heimberg, & Hope, 1993). As it is typically used (e.g., Mattia et al., 1993), participants are shown a series of words that are presented in five different colors. Participants are asked to name the color in which each word is written as quickly as possible while ignoring word meaning, and the total time to color name the words is recorded. Generally, the threat and neutral words are matched on variables such as word length, number of syllables, and frequency of use in common language. Attentional bias is computed as the difference between color-naming speed for social threat words and the color-naming speed for neutral words. Multiple studies have noted that individuals with social anxiety disorder show slower color-naming speed when presented with social threat words than do nonclinical controls (e.g., Kampman, Keijsers, & Verbraak, 2002; Maidenberg et al., 1996; Mogg, Bradley, Millar, & White, 1995). Furthermore, response to cognitive-behavioral treatment for anxiety is associated with a significant decrease in attentional bias, whereas nonresponse to treatment is associated with no significant change in attentional bias (e.g., Kampman et al., 2002; Mattia et al., 1993; Mogg et al., 1995).

Given that the Emotional Stroop task is seldom used in clinical practice and likely offers little clinically relevant data above and beyond self-report or behavioral methods, it is not highly recommended during routine assessment of social skills. However, in peculiar cases, such as if malingering or overreporting or underreporting on other measures is suspected, cognitive measures using subliminal stimulus presentation might be warranted. Furthermore, although the author is not aware of data to support the validity of this use, the Emotional

Stroop paradigm might be useful as a screen for social anxiety among severely disturbed individuals who are unable to distinguish between social skills and social anxiety or provide valid data regarding their emotional state.

Social Anxiety Disorder Treatment and Social Skills

In the social anxiety field, there is debate regarding whether or not treatments incorporating social skills training are necessary. Treatments based on Heimberg's cognitive behavioral group therapy (e.g., Heimberg, 1991; Heimberg & Becker, 2002; Hope et al., 2000) have repeatedly demonstrated excellent efficacy without the use of a skills training component (Heimberg, Salzman, Holt, & Blendell, 1993; Heimberg et al., 1990, 1998). Conversely, similar treatments that do utilize skills training (e.g. Turner et al., 1994) have also shown excellent efficacy (Beidel, Turner, & Morris, 2000; Turner et al., 1994). As noted earlier, Mersch et al. (1989) reported similar efficacy of social phobia treatments with and without skills training components, and were unable to elucidate client variables that might indicate one treatment approach over another. That said, in cases where concomitant skills deficits *and* social anxiety are observed, social anxiety treatment programs incorporating a skills training component may be particularly valuable.

Summary and Recommendations

Unfortunately, the primary conclusion that can be drawn from the research on social anxiety and social skills is that few conclusions can be drawn. While it is clear that socially anxious individuals *perceive* their social performance to be impaired or substandard, the extent to which this is true is unclear. Well-conceived studies have yielded contradictory results, with some reporting no relationship between social anxiety and impaired social performance (Cartwright-Hatton et al., 2003, 2005; Clark & Arkowitz, 1975; Rapee & Lim, 1992; Strahan & Conger, 1998), while others show distinct relationships (Glasgow & Arkowitz, 1975; Norton & Hope, 2001a; Stopa & Clark, 1993; Thompson & Rapee, 2002). These varied results make further investigations into the nature of, and causal relationships between, social anxiety and possible skill deficits necessary. Indeed, it may simply be that we are asking the wrong questions by assuming that socially anxious individuals, or even social phobics, are a homogeneous group. It seems more plausible that *some* socially anxious individuals have deficits in their social repertoire, with the skill deficits promoting social anxiety in some, anxiety leading to social skill deficits due to limited learning and practice opportunities in others, or even possible third factors influencing both anxiety and skill deficits in others still.

Although the relationship among social anxiety, social skill deficits, and skill performance deficits remains uncertain, the clear impact of social anxiety on perceived social competence and the possible impact of social anxiety on skill development and performance make assessment for social anxiety imperative in a comprehensive social skills assessment. A simple battery of one or two self-report questionnaires, such as the BFNE and LSAS, combined with self and observer ratings of social anxiety during role-played interactions (e.g., incorporated into the SSBAS) is recommended. This approach would provide the clinician with data to determine the extent to which a client's difficulties stem from skill or performance deficits, thus suggesting a skills training treatment approach, social anxiety, suggesting the use of cognitive behavioral treatment with or without SST, or both, possibly indicating CBT with SST.

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Chapter 12
Assessment of Social Skills and Intellectual Disability

Luc Lecavalier and Eric M. Butter

INTRODUCTION

Social skills foster healthy interpersonal relationships, promote independence, and are crucial to coping with stressful situations. Deficits in social skills are a critical component of intellectual disability (ID). They are related to many important personal and social outcomes in this population. In many ways, social skills are at the heart of controversies on how to define ID. As such, this chapter begins with an overview of the disability. Next, the relationship between ID and social skills is discussed in light of similar constructs, psychopathology, and genetic disorders. We then briefly elaborate on a few assessment considerations and modalities. Finally, we present an overview of selected adaptive behavior measures and rating scales. Instruments were chosen based on their widespread use, recent development, or unique features.

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INTELLECTUAL DISABILITY: DEFINITION, DIAGNOSTIC CRITERIA, AND CLASSIFICATION

Definition

The history of the condition known today as ID is replete with name changes (e.g., idiot, feebleminded, mental deficiency). At the time of this writing, the term ID is receiving the most support internationally and is in the midst of replacing the term mental retardation (MR) in the United States. In this chapter, we use the term ID whenever possible. We use it as a synonym to the term MR.

ID is a particular state of functioning characterized by concurrent deficits in intellectual and adaptive functioning which are present in the period of development (AAMR, 2002; APA, 2000; Jacobson, Mulick & Rojahn, 2007). ID is not something one has like green eyes, short stature, or a disease. Rather, it is a state of functioning that begins in the period of development. ID has many different etiologies and can be seen as the final pathway of different pathological processes. In other words, a myriad of environmental and biological factors can lead to this state of functioning. ID is defined functionally, not biologically or etiologically. It is a definition based on societal expectations; an individual's functioning is evaluated within the context of his peers and culture. Levels of intellectual and adaptive functioning are measured with standardized instruments and objective, but arbitrary, cutoffs are used.

Limitations in functioning are defined by two dimensions: intellectual and adaptive skills. Intelligence can be defined as the general mental ability that allows one to adapt to the environment, learn, and perform abstract thinking (see Sattler, 2008). Adaptive skills are behaviors people learn in order to function in their daily lives. Intelligence and adaptive behavior are clearly related but different constructs. Intelligence is viewed as a more conceptual domain reflecting developmental potential, while adaptive behavior is viewed as a more practical domain reflecting actual performance. The adaptive behavior criterion was introduced to improve the validity of the diagnosis by better reflecting the social nature of the disability.

Diagnostic Criteria

The seeming simplicity of the definition of ID can be quite deceptive. Most major diagnostic systems agree on the necessity of the three diagnostic criteria (i.e. delays in intellectual and adaptive functioning during the developmental period), but diverge on the specifics. The diagnostic criteria proposed by the American Psychiatric Association (APA, 2000) and the American Association on Mental Retardation (AAMR, 2002) [now called the American Association on Intellectual and Developmental Disabilities (AAIDD)] are presented next.

The APA (2000) defined ID as an IQ approximately two standard deviations (SD) below the average on a standardized, individually administered test of intelligence. Deficits in adaptive functioning were defined as difficulties in meeting the standards expected for one's age group and culture in at least two of the following 10 areas: communication, self-care, home living, social/interpersonal skills, use of community resources, self-direction, functional academics, work, leisure, and health and safety. The onset of these deficits is before the age of 18 years.

The AAMR (2002) also defined ID as a performance approximately two SDs below the mean on an individually administered test of intelligence, considering the standard error

of measurement. Deficits in adaptive functioning were defined as a performance two SDs below the mean on social, conceptual, or practical adaptive skills, or on an overall measure of these three areas. According to the 2002 AAMR system, examples of social adaptive skills include interpersonal skills, responsibility, self-esteem, gullibility, naïveté, following the rules, obeying the law, and avoiding victimization. Conceptual adaptive skills include language, functional academics, money concepts, and self-direction. Practical skills include activities of daily living, occupational skills, and maintaining a safe environment. The deficits must be present before the age of 18 years.

The adaptive behavior criterion has been the most controversial. Despite the fact that it was formally introduced in the American Association on Mental Deficiency's (AAMD) fifth definition of ID (Heber, 1959), consensus on the nature, structure, and measurement of the construct, as well as its role in the diagnosis is still lacking (Schalock & Bradock, 1999; Widaman & McGrew, 1996).

Both APA (2000) and AAMR (2002) view the period of development as ending at the age of 18 years. Though states similar to ID can be induced later in life by other factors (e.g., traumatic brain injury, stroke), they reflect qualitatively different conditions.

Classification

ID is a heterogeneous condition and depending on the function of classification can be based on several variables such as intellectual deficits, etiology, or needs for supports applied to areas of adaptive skills (i.e., intermittent, limited, extensive, and pervasive supports). Classification is usually based on intellectual deficits where each level of ID essentially corresponds to an additional SD below the mean (i.e., mild ID, between 2 and 3 SDs; moderate ID, between 3 and 4 SDs; severe ID, between 4 and 5 SDs; and profound ID, below 5 SDs). According to this classification, about 85% of people with ID function in the mild range. Each level of ID is associated with different characteristics. For instance, there is more variation in adaptive behavior attainment in people with mild and moderate ID compared to those functioning in the severe and profound range. Lower functioning people also have an increased tendency to present with biological abnormalities (e.g., Jacobson et al., 2007).

INTELLECTUAL DISABILITY AND SOCIAL SKILLS

Social Skills, Social Competence, and Social Intelligence

We make a distinction between social skills, social competence, and social intelligence, even though we realize there is no universally accepted definition for these three terms. *Social skills* are specific measurable interpersonal behaviors. They could be defined as situation-specific behaviors that maximize the probability of obtaining reinforcement or decreasing the likelihood of punishment. These specific behaviors (e.g., establishing eye contact, smiling, turn taking) are not a part of the definition of ID per se, but they permeate most aspects of functioning and determine a range of adaptive outcomes (see Jacobson et al., 2007). To illustrate their importance, the National Research Council Committee on Disability Determination for Mental Retardation recommended that social skills assessment be a priority when determining eligibility for Social Security benefits (Reschly, Myers, & Hartel, 2002).

Social competence is a subjective judgment about how effectively an individual performs social tasks. It is a global appraisal of social functioning based on a collection of discrete

behaviors. It is a multidimensional construct that includes socially oriented adaptive skills (e.g., expressing self, interacting with others, playing and leisure skills) and peer relationship variables such as popularity and friendship (Gresham & Elliot, 1987). The construct of social competence has been central to the definition of ID for quite some time (Siperstein, 1992). Both Tregdol (1937) and Doll (1941) viewed the lack of social competence as an essential component of ID. It continues to remain an important aspect of defining and classifying ID.

Social intelligence can be viewed as the cognitive underpinning of social competence and social skills. It refers to the mental abilities that allow people to act flexibly and appropriately, making wise interpersonal judgments in the various social contexts encountered (Greenspan, Switzky, & Granfield, 1996). There is a clear overlap between the constructs of social competence and social intelligence. Although an emphasis on intellectual and adaptive skills has predominated ID research and clinical practice, some have argued that a complete understanding of the disability needs to include the construct of social intelligence (Greenspan et al., 1996; Greenspan & Love, 1999). Despite decades of development in terms of the theoretical underpinnings of social intelligence, little advance has been made in its measurement.

Psychiatric and Behavior Problems

It is a well-known fact that people with ID of all ages experience high rates of psychiatric and behavior problems (Rojahn & Tassé, 1996). In fact, they are much more likely to experience these problems than their typically developing peers (e.g., Borthwick-Duffy, 1994; Dekker, Koot, van der Ende, & Verhulst, 2002).

The relationship between social skills and mental health problems has been documented for some time in people without ID (Bellack & Hersen, 1998). For instance, social skill deficits have been associated with anger management problems, substance abuse, delinquency, schizophrenia, ADHD, and anxiety and sexual disorders.

Surprisingly, the relationship between social skills and psychiatric disorders has not received much empirical attention in people with ID. Matson, Anderson, and Bamburg (2000) correlated scores from a DSM-IV-based checklist and the *Social Performance Survey Schedule-Revised* (described later in this chapter) in a sample of 127 adults with mild or moderate ID and reported that people with more severe psychopathology had less social skills. Benson, Reiss, Smith, and Laman (1985) found depression to be associated with poor social skills and low levels of supports in adults with mild ID. Fewer studies have examined these relationships in people with severe and profound ID, partly because of difficulties in identifying and classifying psychiatric disorders in this population. Matson, Smiroldo, and Bamburg (1998) reported that increases in symptoms of psychopathology predicted increases in negative subscales of the MESSIER (also described in this chapter). This relationship did not hold true for the positive subscales.

Turning to behavior problems, Duncan, Matson, Bamburg, Cherry, and Buckley (1999) reported a relationship between social skills and aggression and self-injurious behaviors in adults with severe or profound ID. Compared to people who did not engage in these behaviors, those who did had a restricted range of social behaviors.

For some time, researchers have speculated that social skills deficits were linked to the functional properties of many behavior problems (e.g., Carr & Durand, 1985; Iwata, Dorsey, Slifer, Bauman, & Richman, 1982). In other words, for some people with ID, communication and social skills are so low that they engage in behaviors such as aggression in order to gain access to reinforcers or escape unpleasant situations.

Genetic Syndromes

Over the past couple of decades, advances in human genetics have changed the field of ID. Several hundreds of genetic ID etiologies have been identified, and researchers have been unraveling the relationship between genes and behavior. Simply stated, genetic disorders affect various aspects of behavior, including social functioning. For illustrative purposes, molar and molecular characteristics of a few well-researched syndromes are presented.

Down syndrome (DS) is caused by the presence of all or part of an extra copy of chromosome 21. A number of reports have described people with DS as amiable, cheerful, and sociable (see Dykens, Hodapp, & Finucane, 2000). Beyond these subjective descriptors, studies have reported relative strengths in the Socialization domain of the *Vineland Adaptive Behavior Scales* (VABS; Sparrow, Balla, & Cicchetti, 1984) (Dykens, Hodapp, & Evans, 1994). Compared to their counterparts with ID and nonspecific etiologies, children with DS tend to engage in higher rates of specific social behaviors (Kasari & Hodapp, 1996). For instance, they look longer at faces than objects and "half smile" (smiles of brief duration or involving parts of the face) more often than others.

Williams syndrome is caused by a contiguous gene deletion in a critical region of chromosome 7. People with this syndrome have been described as friendly, charming, and lovable (see Dykens et al., 2000). These traits are likely linked to specific cognitive strengths such as their ability to recognize faces, express themselves verbally (complex syntactic structures and mean length utterances exceeding their mental age), and interpret the mental states of others. Social and communication domains of the VABS are relative strengths for many (Greer, Brown, Pai, Choudry, & Klein, 1997).

Fragile X syndrome is caused by a mutation in the FMRI gene on the X chromosome. Individuals with this syndrome also seem to present with distinct adaptive behavior profiles (see Dykens et al., 2000). Many show relative weaknesses in the Communication and Socialization domains of the VABS. In females, these relative weaknesses are primarily seen in the interpersonal area of the Socialization domain. Gaze avoidance and other autism-like behaviors are commonly observed.

ASSESSMENT CONSIDERATIONS

Purposes of Assessment

Social skills are not part of the diagnostic criteria of ID per se, but their assessment is critical to developing intervention programs and behavior support plans. Gresham (1998) proposed three types of social skills deficits, based on acquisition, performance, or fluency. *Acquisition deficits* are present when an individual has not learned the behavior. *Performance deficits* consist of not engaging in a behavior at all or in the correct context. Finally, *fluency deficits* occur when an individual does not perform the behavior accurately at high enough rates and flexibly across variously related and appropriate contexts. It is possible, especially within the mild range of ID, that deficits are a function of limited motivation rather than a lack of knowledge or practice (Greenspan et al., 1996). Motivation to engage in behaviors comes from the social environment and changes with each context and individual encounters. Different types of deficits can be related. For instance, when an acquisition deficit exists, an individual is more likely to avoid situations in which he could practice those skills, thus further limiting the likelihood of acquisition (McGinnis & Goldstein, 1997).

Modalities of Assessment

Social skills can be assessed by direct observations, analogue assessments, rating scales, or interviews. Multiple sources of information are preferred as different methods and informants tend to have modest levels of agreement (Meier & Hope, 1998; Myers & Winters, 2002). When selecting an instrument, close attention should be paid to psychometric properties and sample characteristics.

Verbal behavior has traditionally been the most highly correlated behavior with intelligence. As intellectual functioning decreases, so does the scope and sophistication of verbal behavior. This impacts the assessment of social skills in ID in several ways. For instance, self-report techniques (interviews and rating scales) may not be appropriate for everyone (see Finlay & Lyons, 2001). As a group, people with ID have difficulties with questions that require quantitative judgments or direct comparisons, or contain unfamiliar and sensitive topics. Depending on the phrasing and response format, they also have unique response patterns such as acquiescence and are more susceptible to leading questions. Although some strategies have been utilized to overcome these difficulties (e.g., simplifying the content of questions or using visual aids to facilitate rating systems), their validity has yet to be demonstrated. Given the unique characteristics of people with ID, modalities based on direct observations or caregiver reports are the most frequently used.

Observations in Naturalistic Settings

Direct observations of social skills generally involve a coded evaluation, by one or more observers, of specific behaviors determined prior to the assessment. Behaviors should be objectively defined. They often include eye contact, latency of speech, or tone of voice (Kazdin, 1984). Defining the behavior, response dimension, and parameters of observations can be difficult (Gresham, 1998). Advantages to observation procedures include that they are based upon a clear, objective definition of the social skill. This can lead to a more reliable assessment than indirect methods where the rater is often left to define the social behavior. Disadvantages to observation procedures include that they can be time consuming and costly. They can cause reactivity in the person being observed, especially with conspicuous observation practices.

Analogue Assessments

Analogue assessment can be used if naturalistic observations are not possible. This method involves creating an environment that approximates a typical social situation and observing the targeted skills. One use of analogue procedures is role play. In this procedure, the individual being assessed reacts to a contrived social situation, and the evaluator observes the quality and/or frequency of a particular skill. Role play can provide the objective assessment gained through naturalistic observation, but without the burden and obstacles of observing in naturalistic environments. However, it can be artificial, not representing the full complexity of the person's typical social environments. Additionally, role plays are verbally demanding and may not be possible with individuals with limited attention, reasoning, and abstraction abilities. Little research has been done on the use of role plays in people with ID (see Bielecki & Swender, 2004). In fact, the literature on the validity of role plays is mixed in individuals with average intelligence (e.g., Meier & Hope, 1998).

Rating Scales

Rating scales are standardized tools, usually comprising multiple items, with a built-in system for quantifying behaviors and emotional states. The method for quantifying behaviors is usually a metric relating to frequency, quality, and/or importance of specific social skills. Advantages of rating scales are that they are quick and inexpensive. They enable raters to consider behaviors over a broad time period, wide range of settings, or with low frequencies. Their standardized content facilitates communication between professional and normative data can assist in identifying people who are extreme on a given dimension. Disadvantages include their subjectivity. Many scales invite the raters to make judgments about another person's behavior or to infer emotional states. Furthermore, some raters are prone to halo errors. Many scales have items that are too broad to reflect treatment gains or not similar enough to the behaviors being treated. Importantly, many scales have unknown or weak psychometric properties.

Interviews

It is important to note that little is known about the validity of clinical interviews for the assessment of social skills in people without ID (Meier and Hope, 1998). Given the unique features of people with ID, caregivers are often interviewed in a semi-structured manner. Adaptive behavior scales are generally completed in this fashion and are discussed below. They are similar to rating scales in that they have built-in systems for quantifying behaviors. Gresham (1998) proposed a semi-structured functional assessment interview (FAI) designed to identify social skills deficits and assist in developing an intervention plan. The tool defines social skills deficits for each person, differentiates between acquisition, performance, and fluency deficits, and identifies competing problem behaviors that interfere with acquisition, performance, and fluency. Interviews can provide initial information to form a basis for further inquiry. In this way, they can be a good beginning to the evaluation process, helping to direct choices of additional assessment procedures.

OVERVIEW OF SELECTED INSTRUMENTS

Adaptive behavior instruments are usually used in diagnostic contexts. As a group, they are applicable to a broader population in terms of age and level of functioning. They are more helpful in establishing global levels of social functioning. Conversely, social skills rating scales are usually more focused, both in terms of content and targeted population. As such, they might be more helpful in establishing treatment priorities and measuring behavioral change. Having made this distinction, both types of instruments vary significantly in terms of their content (e.g., specificity and objectivity of the items). The following adaptive behavior scales and social skills rating instruments were reviewed because of their widespread use, recent development, or unique features.

Adaptive Behavior Scales

Vineland adaptive behavior scales – second edition (VABS-II)

The VABS-II (Sparrow, Cicchetti, & Balla, 2005) measures four areas labeled Communication, Daily Living, Socialization, and Motor Skills. It is available in three

different editions (survey, expanded, and classroom) when used as a semi-structured interview. It is also available as a parent/caregiver rating scale. The content of the rating scale is identical to the survey edition; both forms differ only in the method of administration. The tool was normed on a sample of 3,000 people from birth to age 90 years, selected to match US census data. VABS-II items are rated on a 3-point rating scale, where $0 = Never$, $1 = Sometimes or Partially$, and $2 = Usually$.

The Socialization domain contains 99 items divided into three subdomains: interpersonal relationships (38 items), play and leisure time (31 items), and coping skills (30 items). Within each subdomain, items are associated to content categories. These categories are each associated with 1–11 items and were incorporated to facilitate administration by allowing the interviewer to locate questions with similar content. In the social domain, there are 19 categories. Examples of categories include responding to others, expressing and recognizing emotions, imitating, sharing and cooperating, thoughtfulness, friendship, dating, recognizing social cues, apologizing, and keeping secrets. Although these content categories were not derived empirically or evaluated psychometrically, they illustrate the wide range of social behaviors assessed.

Key reliability and validity data for the Socialization domain based on Sparrow et al. (2005) are presented next. Measures of internal consistency varied according to different age levels, but were in the .80s and .90s at the domain level and in the .70s and .80s at the subdomain level. Test-retest reliability was excellent for all age groups at the domain (ICCs in the .80s and .90s) and subdomain levels (ICCs above .75). Inter-interviewer agreement on the survey edition was good at the domain level (ICC = .72) but lower at the subdomain level (ICCs between .53 and .71). On the rating form, interrater reliability for domain and subdomains was good to excellent, with ICCs above .73. The Socialization domain converges well with other similar instruments. For instance, it was strongly associated with the social subscale of the ABAS-II (described below) with correlations varying between .59 and .72, depending on age groups.

The VABS-II was carefully developed and has good psychometric properties. Compared to the previous edition there is an increased item density measuring skills at lower levels/younger ages. As a result, the survey edition contains more items (a total of 383 compared to 264 in the VABS). Most psychometric properties were assessed by combining data from the survey edition and rating scale. Future studies will need to confirm the utility and validity of the rating scale, a promising new feature. In addition to providing a normative index of social functioning, the VABS-II holds promise as a measure of change.

Adaptive behavior assessment system –second edition (ABAS-II)

The ABAS-II (Harrison & Oakland, 2003) consists of five rating scales with similar content. Different rating forms are used for parents and teachers and according to the age group of the person being rated (parent and teacher preschool forms, parent and teacher school-age forms, and adult forms). The forms were normed on a sample of more than 5,000 people from birth to 89 years, selected to match US census. The different forms contain between 193 and 241 total items, all rated on a 4-point scale, where $0 = Not able$, $1 = Never when needed$, $2 = Sometimes when needed$, and $3 = Always when needed$. Items are regrouped according to the ten adaptive skill areas proposed by AAMR (1992). Composite scores can be derived for all three domains (social, practical, and conceptual) described in AAMR (2002). The social domain consists of the social and leisure subscales, which contain between 20 and 25 and 17 and 23 items, respectively, depending on the form.

We now turn to the psychometric properties of the social domain and subscale (Harrison, & Oakland, 2003). Measures of internal consistency were calculated according to different

age groups, levels of functioning, and informants. Overall, they were in the .90s at the domain level and in the .80s at the subscale level. In general, test-retest Pearson correlations were in the .80s and .90s at the domain level and in the .70s, .80s, and .90s at the subscale level. In most cases, interrater Pearson correlations were in the .70s and .80s at the domain level and slightly lower at the subscale level for similar informants (e.g., parent and parent). Turning to validity, the convergence between the ABAS-II's social domain and the socialization domain of the VABS ranged from .62 ($n = 44$ preschool children) to .71 ($n = 57$ school age children) across different samples.

The ABAS-II was developed according to AAMR's (1992) definition of ID. As such, only a small proportion of the items measure interactive social behaviors. This is especially true at lower levels of functioning. Depending on the quality of the informant, the rating scale format might prove to be practical.

Assessment of basic language and learning skills (ABLLS)

The ABLLS (Partington & Sumdberg, 1998) is a criterion-referenced instrument. It was designed as an assessment, curriculum guide, and skills tracking system for children with language delays. It contains four sections labeled Basic Learner skills, Academic skills, Self-help skills, and Motor skills. These four sections are further divided into 26 areas. Some areas under the Basic Learner section are especially relevant to the assessment of social skills in people with ID, namely Receptive language (52 items), Requests (27 items), Labeling (42 items), Intraverbals (42 items), Spontaneous vocalizations (9 items), Play and leisure (10 items), Social interactions (22 items), and Group instruction (12 items). Items represent distinct tasks and are scored on a 3- or 5-point scale representing specific performance criterion. For instance, the item "requests others to perform an action" can be scored according to five options depending on the number of different actions the individual can request others to engage in. An attempt was made to arrange items in an approximate developmental sequence.

Unlike the VABS-II and ABAS-II, the ABLLS was not designed for diagnostic purposes. This does not exempt the tool from empirical evaluation; at the time of this writing, published evidence on the tool's reliability and validity was lacking. Given the popularity of the tool, it is a promising candidate to benefit from some of the recent development in modern measurement theory (e.g., item response theory). Based on item content, The ABLLS will be more suitable for younger and lower functioning individuals and has potential as a measure of change.

Social Skills Rating Scales

Matson evaluation of social skills for individuals with severe mental retardation (MESSIER)

As its name implies, the MESSIER (Matson, 1995) was designed for adults with severe and profound ID. It contains 85 items rated on a 4-point scale, where $0 = Never$, $1 = Rarely$, $2 = Some$, and $3 = Often$. Items were grouped into six clinically derived subscales and labeled as follows: Positive Verbal (e.g., Says please), Positive Non Verbal (e.g., Waves hello appropriately), General Positive (e.g., has a friend), Negative Verbal (e.g., talks with food in mouth), Negative Non-Verbal (e.g., pushes, hits, kicks, etc. peers or caregivers), and General Negative (e.g., is timid or shy in social situations).

Matson, LeBlanc, and Weinheimer (1999) reported on the reliability of the scale. Internal consistency was .94 for the total score and varied from .75 to .96 for the six subscales (positive subscales had higher values than negative ones). Based on Spearman-ranked correlations, test-retest and interrater reliability coefficients for the total score were .86 and .73, respectively. Indices of reliability were also reported at the item level, but not for subscale scores. In terms of validity, LeBlanc, Matson, Cherry, and Bamburg (1999) reported a Spearman correlation of .79 between the MESSIER total score and sociometric rankings. Matson, Carlisle, and Bamburg (1998) reported a correlation of .77 between the sum of all three MESSIER positive subscales and the Socialization domain of the VABS in a sample of 892 individuals of all ages, most of them with profound ID.

The MESSIER is the social skills rating scale with the most published psychometric data in the field. Many items necessitate verbal skills, while others measure behavior problems. The psychometric properties were derived from the ratings of trained interviewers who completed the tool with caregivers in semi-structured interviews. In all likelihood, the instrument will be used as a rating scale and future studies need to examine its reliability and validity in this format.

Assessment of social competence (ASC)

The ASC (Meyer et al., 1985) was designed to measure social behaviors at all levels of functioning. It consists of 252 items organized into 11 dimensions (e.g., initiates contact, follows rules, offers assistance, indicates preferences). Within the 11 dimensions, items are grouped according to eight levels representing a hierarchy of increasing social ability. Items are scored in one of the following three ways: no evidence of the behavior, someone else reported the behavior, or direct observation of the behavior.

Meyer, Cole, McQuarter, and Reichle (1990) reported on the tool's reliability and validity in a sample of 140 youngsters with severe or profound ID (aged 7–21 years) and 161 young adults (aged 21–28 years) with moderate or severe ID. High internal consistency for the total score was reported for both children and adult samples (alpha = .93 and .95, respectively). Test-retest and interrater reliability were assessed in the child sample. Temporal stability was r = .90 for the total score and varied from .53 to .86 for the different subscales. Interrater reliability among parents and teacher was .70 for the total score. Evidence of validity included negative correlations with level of ID (-.51) and a correlation of .46 with the social/communication cluster score of the *Scales of Independent Behavior* (SIB; Bruininks, Woodcock, Weatherman, & Hill, 1984) in the adult sample.

The ASC appears to have been carefully developed and possesses good psychometric properties. It seems to measure an array of social competences (including daily living skills and behavior problems), but might be sufficiently molecular to have some utility in intervention research.

Social performance survey schedule – revised (SPSS-R)

The SPSS-R (Matson, Helsel, Bellack, & Senatore, 1983) is an adaptation of the SPSS (Lowe & Cautela, 1978), a scale developed for adults of average intelligence. Matson and colleagues adapted the scale for use in adults functioning in the range of mild-to-moderate ID by retaining 57 of the original 100 items. Items are rated on a 5-point scale (not at all, a little, a fair amount, much, and very much) and assess both positive and negative behaviors. Examples of items include initiates contact and conversation, gives positive feedback to others, keeps commitments, interrupts others, gets into arguments, and takes advantage of others. Matson et al. had six raters assess 207 people with ID between the ages of 21 and 59 years. Factor

analysis of the ratings indicated four factors labeled Appropriate social skills (26 items), Communication skills (12 items), Inappropriate assertion (9 items), and Sociopathic behavior (10 items). Despite being published 25 years ago, and being one of the only instruments for higher functioning adults with ID, little is known about the instrument's psychometric properties.

Matson evaluation of social skills in youngsters (MESSY)

There are two versions of the MESSY, a 62-item self-report form and a 64-item caregiver form (Matson, Rotari, & Helsel, 1983). The instrument was developed in a sample of 744 children between the ages of 4 and 18 years recruited from schools in Illinois. The sample included some people with mild ID, although the proportion and selection criteria remain unclear (Matson & Hammer, 1996). Of the 744 youngsters, 422 completed the self-report form in semi-structured interviews, and 322 were rated by teachers. Examples of items include becomes easily angry, is bossy, walks up to people and starts a conversation, asks questions when talking to others, and joins in games. Items are rated on a 5-point Likert Scale, ranging from Not at all to Very much. Factor analyses indicated that two factors, labeled Appropriate Social Skills and Inappropriate Assertiveness, had clear counterparts in both forms. Two other factors, labeled Impulsive/recalcitrant and Overconfident and jealousy/withdrawal, were distinct to the self-report form.

The instrument's developer has used the MESSY to rate the social behaviors of children with various developmental disabilities, including hearing impairments (Raymond & Matson, 1989), visual impairments (Matson, Heinze, Helsel, Kapperman, & Rotatori, 1985), and autism (Matson, Compton, & Sevin, 1991). Additional studies rating the behaviors of youngsters with ID would be helpful.

Social skills rating system (SSRS)

The SSRS (Gresham & Elliot, 1990) is available in a parent, teacher, or self-report form. Different forms are used for preschool, elementary, and secondary students. Scale and subscale composition vary from form to form; there is less than 50% overlap between them. The different forms have three social skills subscales in common labeled Cooperation (e.g., helping others, complying with rules), Assertion (e.g., asking for information, introducing self), and Self-control (e.g., responding appropriately to teasing, taking turns). Items on these subscales are rated on two, 3-point rating scales according to their frequency (never to very often) and importance (from not important to critical).

The SSRS was normed on a representative national sample of more than 4,000 children, and a small proportion of them had mild ID. The authors reported that internal consistency was good-to-excellent (alpha from .87 to .94) for the total score across all forms and ages and varied significantly for the social skills subscales (alpha between .65 and .92). Test re-test reliability for parents and teachers was very good for the total score and subscale scores. In terms of validity, a group of children with various disabilities (learning disability, mild ID, and behavior disorders) obtained significantly lower scores than their typically developing peers (Gresham & Elliot, 1990). Merrell and Popinga (1994) correlated SSRS and SIB scores in a sample of 208 students in kindergarten through grade 3 with a variety of disabilities (some of which had ID). Social and communication cluster score of the SIB correlated between .46 and .58 with the social skills subscales and .57 with SSRS total score.

Based on item content, the SSRS will be more relevant for children and adolescents functioning in the mild and moderate ranges of ID. To our knowledge, little psychometric research has been conducted on it in samples comprising exclusively youngsters with ID.

CONCLUSION

Social skills are central to ID. The disability entails difficulties in effectively meeting environmental expectations. In this sense, social functioning is at the heart of ID. This is reflected in the content of instruments, which contain many items that measure a form of practical intelligence that mostly confounds social competency with other forms of functional skills. Effective social skill building is unlikely unless clinicians and researchers can conduct reliable and valid assessments. Such assessments could lead to training packages tailored to the special needs of people with ID. Additional research is desperately needed not only on the methods and instruments currently used but also on other assessment modalities.

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Chapter 13
Assessment of Social Skills and Social Competence in Learners with Autism Spectrum Disorders

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In practical terms, autism, or as it is generally referred to today, autism spectrum disorder is a pervasive developmental disorder impacting communicative and social competence and characterized by restricted patterns of behavior, interests or activities, and stereotypic behavior (e.g., Volkmar & Klin, 2005). The term autism spectrum disorder is used to describe the wide diversity of expression within this diagnostic category and is generally acknowledged to include the separate diagnoses of autism, Asperger Syndrome, and Pervasive Developmental Disorder-Not Otherwise Specified (PDD-NOS).

Generally diagnosed before the age of 3 years – although reports indicate that diagnoses at less than 18 months are possible (e.g., Osterling, Dawson, & Munson, 2002) and that children with Asperger Syndrome may be diagnosed at a much later age (e.g., McConachie, LeCouteur, & Honey, 2005) – autism spectrum disorders occur in a 4:1 male to female ratio and occur across all racial and ethnic boundaries. As to prevalence, the past decade has seen

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dramatic reports citing the increase in the prevalence of autism spectrum disorders (ASDs). From an earlier prevalence estimate of approximately 2–5 cases per 10,000 individuals (.2–5 per 1,000, American Psychiatric Association, 1994); the figure most often cited today is approximately 2–6 cases per 1,000 individuals with the higher estimate resulting in the 1 case per 166 individuals often noted (CDC, 2004). With increasing numbers of individuals diagnosed with an ASD, there is a need for greater attention to instruction, intervention, and assessment across all ASD domains, but for the social competence domain in particular given its particular complexities. We will review several considerations for assessment of social skill competence, including the role of joint attention in social responding, an understanding of "social survival" skills as a subset of social competence, the role of context in social competence assessment, and the functional role that social responding plays on an individual basis. We will also describe assessment methodologies and tools that may be helpful for assessing social competence and skill for individuals with ASD.

GENERAL CONSIDERATIONS

Joint Attention and Reciprocal Social Interaction

Deficits in reciprocal social interaction in ASDs have received much research attention, with particular aspects of this construct hypothesized to account for the manifestation of this problem. In brief, reciprocal social interaction refers to nonverbal and verbal behavior that is the basis for human social interaction (see American Psychiatric Association, 1994, p. 66). Joint attention, the capacity of the individual to coordinate attention with a partner for the purposes of sharing an event or object (Mundy & Burnette, 2005), is viewed as a primary mechanism by which social relatedness emerges. By failing to engage in activities of joint attention (e.g., eye contact combined with gestures for sharing information) young learners with ASDs are subsequently lacking in the experience of including others in their interactions with the environment, thereby resulting in a diminished ability to develop a more comprehensive repertoire of social responding (Ozonoff & South, 2001). In fact, some researchers (e.g., Baron-Cohen, 1995) have postulated that the core social deficits associated with ASDs are the result of deficits in joint attention rather than being symptomatic in and of themselves. With regard to assessment, issues related to joint attention are relevant given that most assessments of communicative competence will, in part, depend on the individual's ability to engage in such basic aspects of social relatedness as joint attention. However, joint attention is necessary but not sufficient for social relatedness; other crucial domains of this construct especially relevant for individuals with ASDs include social orientation, attachment, imitation, emotional expression, perspective taking, and knowledge of rules and social conventions (Baron-Cohen, 1995; Wetherby & Prizant, 2005).

Social Competence, Skill, and Survival

Social competence, as noted by Gesten, Weisberg, Amish, and Smith (1987) refers to a generalized "summary judgment of performance" (p.27) across environments. Social skills, the authors contend, are subsequently best described as the discrete component skills of social competence, both verbal and nonverbal, that enable us to meet our needs and avoid unpleasant circumstances. Social competence involves the behavioral, cognitive and affective domains (Topper, Bremner, & Holmes, 2000) and incorporates the fluent display of such diverse, yet

discrete, skills as establishing and maintaining appropriate eye contact (micro-skills) and engaging in conversation and relationship building (macro-skills) (Gesten et al., 1987). Social competence, therefore, requires an extensive repertoire skills, an understanding as to when and how to use these skills, and an ability to adapt and generalize skills and skill sets across multiple environments, none of which are regarded as strengths of individuals with ASDs.

In the absence of social competence, an assessment of what may be referred to as social survival skills may be most appropriate. Social survival skills are individual social behaviors necessary for minimally successful navigation of the environment and represent a small subset of the broad set of social behaviors in a given domain, the majority of which would likely be displayed by one deemed socially competent. For example, the job interview process can be examined from the point of view of both social competence and social survival. Under ideal circumstances, a degree of social competence would be considered highly desirable during a job interview process (e.g. establish rapport, shake hands firmly but not too firmly, talk about last night's ball game, discuss alma maters, etc.). But in the absence of this comprehensive repertoire of skills, there exists a set of social survival skills (i.e., establishing eye contact, smiling when greeting interviewer, avoidance of controversial discussion topics) that may be sufficient to highlight one's employability and allow one to gain access to employment. This relationship between survival skills and social competence is depicted in Figure 13.1. Failure to assess social responding in terms of both social competence and social survival may result in an assessment of the individual that is, at best, of little prescriptive use or, at worst, invalid.

Toward Promoting Skills from Social Survival to Social Competence

	Emphasis **Less Competence** **More Survival** ⟶		Emphasis **Greater Competence** **Less Survival**
	Necessary: Skills upon which independence may depend	**Preferred: Skills that support independence but may not be critical**	**Marginal: Skills that, while valuable, may be negotiable**
Riding Mass Transit	Wait until others get off before you get on	Whenever possible, chose a seat where you are not sitting next to someone	Whenever possible, put a row between you and other passengers
Lunch with co-workers	Eat Neatly	Respond to interactions from co-workers	Initiate conversations with co-workers
Job Interview	Eye Contact	Ask informed questions about the employer	Comment on items in the office that may be relevant (e.g., is the person someone who likes to fish?)

Figure 13.1. Toward Promoting Skills from Social Survival to Social Competence. Reprinted from Gerhardt, P.F., (2003). Transition support for learners with Asperger Syndrome: Toward successful adulthood, In T. Gullota & R. DuCharme (Eds.), *Aspergers Syndrome* (pp. 159–174). New York: Klewer/Plenum.

The Role of Context

A challenge to the assessment of social competence is that, to a large degree, social competence is context bound. As stated by Topper, Bremner, and Holmes (2000), "Everyone is socially competent in at least one situation and no one is socially competent in all."

(p. 35). As such, any assessment of social competence for a learner with ASDs, on either the competence or survival level, needs to be interpreted as a function of any number of context variables. Context variables that may have an impact on the assessment of social competence include familiarity with the assessor, novelty of the situation, potential demands of the environment or assessed situation, novelty of the assessed situation, preexisting skill sets and the salience of environmental cues to name but a few. When the assessment of social competence is discussed relative to persons with ASDs, an awareness of the contextual variables associated with both the individual's current social repertoire and the context in which these skills are to be assessed needs to be actively considered and, as possible, reported.

The Functional Role of Social Responding

Instructional strategies and packages for developing individual social skills and, to some extent, small areas of social competence have been reported in the literature (e.g., Baker, 2000; Barnhill, Cook, Tebbenkamp, & Myles, 2002; Gray, 1995, Koegel & Koegel, 1995). What is, however, somewhat less discussed is the importance of "functional relevance" as a critical variable in developing social skill repertoires. Social skills are generally recognized as functional in that their use results in either the receipt of positive outcomes or the avoidance of negative ones. That is to say, social skills are reinforced (strengthened) in individual repertoires by their naturally occurring consequences. Initiating and politely asking for ice cream may be reinforced by, subsequently, having a bowl of ice cream. Initiating and politely asking for, say, a clean shirt after eating ice cream however, may have no naturally occurring reinforcers and, therefore, be rarely displayed. Thus, the assessment of variables that maintain social behavior, both appropriate and inappropriate, is a crucial component of social skill assessment and treatment planning. Often, the task for the programmer is to identify what stimuli and reinforcers are maintaining desired and undesired behavior, and then influence the environment such that stimulus and reinforcement control for undesired behavior weakens, while the opposite occurs for desired behavior.

A basic tenet of behavioral psychology is that aspects of one's environment can come to control behavior through such basic behavioral processes as reinforcement, punishment, and stimulus control. A family of procedures referred to as "functional assessment" have emerged primarily with respect to problem behavior assessment and treatment, though the underlying concept is relevant to all behavior. In a functional assessment, hypotheses about variables maintaining problem behavior are derived from observations, caregiver interviews and/or direct manipulations of contingencies (see Paclawskyj, Kurtz, & O'Connor, 2004, for a review). In the latter case, consequences are systematically manipulated so that those conditions reliably determined to be maintaining the behavior may be influenced to effectively reduce the behavior in question. For example, to evaluate the hypothesis that caregiver attention maintains aggression, attention would be provided following each aggressive behavior for a brief period of time, after which the rate of aggression in this condition would be analyzed and compared to other consequence manipulation conditions (e.g., removal of preferred items, academic demands). Of critical importance is that these identified conditions are highly individualized, idiosyncratic and often complex in nature. Similarly, those same descriptors (individualized, idiosyncratic, and complex) most likely apply to the conditions that support fluent social behavior. Without a fairly comprehensive understanding of what an individual with an ASD hopes to get out of a social interaction and in what context he or she expects that to occur, assessments of social competence may, again, have little prescriptive validity. Assessments of social competence may, it seems, need to take into account outcome measures relevant to the functional utility if they are to move from the diagnostic to the prescriptive.

THE ASSESSMENT OF SOCIAL COMPETENCE IN LEARNERS WITH ASD

The Importance of Multimodal Methodology

To assess the full range of factors that should be considered in an assessment of social behavior, it is prudent to employ several methodologies as opposed to only one. For example, rating scales can be an effective means of identifying particular autism-specific social behavior excesses and deficits but will be only partially helpful without an appraisal of the role of contextual functional relations. Conversely, behavioral observation and functional assessment may not identify the full range of behavior necessary for programming in all domains relevant to the individual. Thus, a multimodal approach involving rating scales, behavioral observation, and functional assessment is suggested. The following section highlights research-based social behavior assessment methodologies that have relevance to ASD populations. The higher proportion of rating scale evaluations to behavioral observation methodologies reflects the emphasis evident in this literature to date.

Rating Scale Assessment

Rating scales, assessments of specified behavior completed through recall of observed behavior, are frequently used in assessment of social competence in both research and clinical contexts. This method of social skill measurement has been referred to as a "first-line" assessment methodology for typically developing children due to such factors as ease of administration, ability to assess low-rate behavior, and high reliability of many scales, to name a few (Merrell, 2001). This appraisal of rating scales generally rings true when assessing the social behavior of individuals with ASD. However, most measures labeled assessments of social skills are probably most useful as measures of overall normative-based social competence or global treatment impact, as opposed to tools to aid specific treatment planning or evaluation. This is primarily because most social skill measures do not typically sample the domains of nonverbal and verbal behavior most relevant to individuals with ASD. For example, the skill of effectively introducing oneself to peers requires execution of coordinated nonverbal behavior (i.e., appropriate eye contact, body positioning, distance from the listener) and verbal behavior (prosody of speech, volume of speech, enunciation of speech, syntax, vocabulary), in addition to proper timing of the initiation. For the child with ASD, all of this behavior may require formal assessment and subsequent instruction, though they will not likely be included in the assessment domain of a social skill rating scale. Similarly, individuals with ASD are likely to exhibit greater deficits in such social constructs as perspective taking compared to non-ASD populations. Traditional social skill rating scales may contain some items related to such domains (e.g., for perspective taking, "Compromises in conflict situations by changing own ideas to reach agreement," Gresham & Elliott, 1990; "Chooses not to say embarrassing or mean things or ask rude questions in public," Sparrow, Cicchetti, & Balla, 2005a) but will not likely provide the breadth or detail in these areas that would facilitate detailed treatment planning. Thus, typical social skill rating scales may assist in identifying broadly defined deficiencies and strengths in social repertoires but will not likely inform skill-building efforts with sufficient specificity for persons with ASD.

Given these concerns, it is apparent that to effectively aid in treatment planning, rating scales would need to contain detailed descriptions of social behavior that are relevant to persons with ASD. Surprisingly, few such measures exist. Many rating scales used with

persons with ASD were designed for other populations, such as typically developing children and adults with mental retardation (cf. Bielecki & Swender, 2004; Demaray & Ruffalo, 1995; Merrell, 2003), and overlook the valuable, specific content areas mentioned above. For a comprehensive rating scale assessment of relevant social skills for persons with ASD, it is necessary to use multiple measures that assess both broad and specific domains of social behavior. A good approach would be administering a measure designed for pragmatic language or social-communicative assessment (see next section), in addition to broad-based measures of social skills, such as those designed for typically developing children or adults or individuals with an intellectual disability. In a treatment outcome context, pragmatic language or social-communicative assessments would be more likely to serve as "specifying measures" (Hughes & Sullivan, 1988), or a means of identifying change in specific treatment objectives, whereas social skill rating scales created primarily for non-ASD populations would be most useful as "impact measures" or an assessment of generalized, socially valid treatment outcomes (Hughes & Sullivan, 1988).

The following section contains examples of ratings scales of social behavior, each of which may serve a different but relevant purpose regarding assessment of social skills for persons with ASD. Judgments assigned to assessments of reliability and validity (i.e., "excellent," "good," "fair," etc.) are adapted from Cicchetti (1994).

Social-Communication and Pragmatic Language Measures for Children

Social Responsiveness Scale (SRS; Constantino, 2002). The SRS was designed as a brief screen for ASD in individuals aged 4–18 years, with an emphasis on assessing the severity of the particular reciprocal social deficits associated with the spectrum (a previous version of the scale was named the Social Reciprocity Scale, Constantino et al., 2003). The SRS contains items representing behavior from the other domains of autistic symptomatology (communicative deficits and restricted/stereotypic behavior or interests) but are worded such that their impact on reciprocal social behavior is emphasized (Constantino et al., 2003). Subscales include "social awareness" (e.g., "Knows when he/she is too close to someone or invading someone's space"), "social information processing" (e.g., "Concentrates too much on parts of things rather than 'seeing the whole picture', for example, if asked to describe what happened in a story, child may talk only about the kind of clothes the characters were wearing"), "capacity for reciprocal social responses" (e.g., "When under stress, child seems to go on 'auto-pilot', for example, shows rigid or inflexible patterns of behavior"), "social anxiety/avoidance" (e.g., "Does not join group activities unless told to do so"), and "characteristic autistic preoccupations/traits" (e.g., "Has repetitive, odd behaviors, such as hand flapping or rocking") (Constantino et al., 2003).

Normative data for the SRS is based on a sample of over 1,600 children, and *T*-scores are produced for all subscales as well as the total score. Interrater reliability of the SRS is excellent (.83–.88; Constantino, Przybeck, Friesen, & Todd, 2000; Constantino et al., 2003), as is test-retest reliability, even for testing intervals up to three months (Constantino, Przybeck, Friesen, & Todd, 2000). The SRS has also been found to correlate well with established measures of autistic symptomatology (Constantino et al., 2003).

Children's Social Behavior Questionnaire (CSBQ; Hartman, Luteijn, Serra, & Minderaa, 2006*)*. The CSBQ was designed to assist in the process of identifying individuals with PDD NOS, a diagnostic category typically characterized by more subtle reciprocal social impairment (Luteijn, Jackson, Volkmar, & Minderaa, 1998). The original 135-item

questionnaire was gradually scaled down to 49 through clinical judgment and factor analysis (Luteijn et al., 1998; Hartman et al., 2006). Six factors emerged from the factor analysis which represent the CSBQ subscales, including "behavior/emotions not optimally tuned to the social situation" (e.g., "Does not know when to stop, e.g., goes on and on about things"), "reduced contact and social interest" (e.g., "Has little or no need for contact with others"), "orientation problems in time, place, or activity" (e.g., "Does things without realizing the aim, e.g., constantly has to be reminded to finish things"), and "difficulties in understanding social information" (e.g., "Takes things literally e.g., does not understand certain expressions"). Though it was not designed as a social skills measure per se, the CSBQ's emphasis on different ASD-relevant aspects of social-cognitive functioning makes it a viable social skill assessment tool for this population.

The CSBQ has been administered to a large number of children in reliability and validity analysis studies. However, normative data for the CSBQ is not readily available. The overall internal consistency of the CSBQ is excellent (Cronbach's alpha = .94), with subscale internal consistency ranging from fair (e.g., alpha = .76 for "stereotyped behavior") to excellent (e.g., alpha = .90 for "not optimally tuned to the social situation"). Interrater and test-retest reliabilities for overall and subscale scores were also excellent (e.g., overall correlations of .86 and .90, for interrater and test-retest, respectively). Validity of the CSBQ has been assessed through factor analysis with a stable, 6-factor solution emerging (Hartman et al., 2006). Further evidence of validity is offered through significant differences in scores across PDD-NOS and other clinical samples, with PDD-NOS groups scoring higher than groups without primary deficits in reciprocal social interaction (e.g., ADHD, mental retardation; Hartman et al., 2006).

Children's Communication Checklist (CCC; Bishop, 1998). The CCC was designed to primarily measure pragmatic language deficits, described by the author as commonly overlooked by traditional assessments of language. Though not designed solely for use with ASD populations, the CCC includes the wide range of communicative behavior that is relevant to a detailed assessment of social skills in persons with ASD. Nine subscales are comprised of items that were derived from clinical descriptions of communicative difficulties in children aged 7–9 years, though the scale is appropriate for children aged 5–16 years. Five subscales are devoted to pragmatic language: "Inappropriate Initiation," (e.g., "Keeps telling people things that they already know") "Coherence," (e.g., "has difficulty in telling a story, or describing what he has done, in an orderly sequence of events") "Stereotyped Conversation," (e.g., "has favourite phrases, sentences or longer sequences which he will use a great deal, sometimes in inappropriate situations") "Use of Conversational Context," (e.g., "takes in just one or two words in a sentence, and so often misinterprets what has been said") and "Conversational Rapport" (e.g., "doesn't seem to read facial expressions or tone of voice adequately and may not realise when other people are upset or angry") (Bishop, 1998). Two subscales are devoted to more traditional domains of speech impairment, including speech production ("Speech") and syntactic complexity ("Syntax"). Additionally, two subscales contain items thought to be related to the autism spectrum disorders, one focused on the nature of social relationships ("Social Relationships") and one for unusual and restricted interests ("Interests").

Normative data does not exist for the CCC, but is available for UK and Australian samples for the second edition of this scale – the CCC-2 (Bishop, 2003). Internal consistency for CCC subscales ranges from fair to good (.72 –.86), while inter-rater reliability estimates range from good to excellent (.61–.82). Test-retest reliability for the scale has not been reported. Several studies have suggested that the CCC can discriminate pragmatic language impairments associated with different clinical groups, such as ADHD and Autism (cf. Geurts et al., 2004). Given the CCC's range and detail of pragmatic language content and the inclusion of

social-communicative deficits particular to ASD, it appears to be useful in assessing the range of social-communicative behavior relevant to many children with "high-functioning" ASD, more so than measures of social skills designed primarily for other populations.

Additional measures to consider: The Social Communication Questionnaire (Rutter, Bailey, & Lord, 2003).

Adaptive behavior measures

The Vineland Adaptive Behavior Scales, Second Edition (Vineland-II; Sparrow, Cicchetti, & Balla, 2005b). The Vineland-II, the revision of the widely used Vineland Adaptive Behavior Scales (Sparrow, Balla, & Cicchetti, 1984), is a parent-, caregiver-, or teacher-completed assessment for individuals aged 0 through 90 for the Survey Interview, Parent/Caregiver Rating Form, and Expanded Rating Form, and 3 through 21–11 for the Teacher Rating Form. It can be completed in an interview (Survey and Expanded Interview Forms) or directly by teachers, parents, or other caregivers (Teacher, Parent/Caregiver rating forms). Adaptive behavior is grouped into the domains of Communication, Daily Living Skills, Socialization, and Motor Skills. The Socialization domain is most relevant to the construct of social skills, comprised of the subdomains of "Interpersonal Relationships," "Play and Leisure Time," and "Coping Skills." Like its predecessor, the Vineland-II norms are based on a large, representative sample (>3,000). Extensive analyses of the psychometric properties of the Vineland-II domain, subdomain, and adaptive behavior composite scores are available and generally reflect good to excellent reliability and validity of each (see Sparrow et al., 2005b, pp. 109–172, for a detailed discussion).

The Vineland has been among the most frequently used assessments of adaptive behavior for persons with autism in direct service settings (Luiselli et al., 2001). It has also been frequently used in a variety of research contexts for persons with ASD, including as a dependent measure for treatment outcome (cf. McDougle et al., 2005), and as a means of exploring ASD social deficits in comparison to non-ASD populations (cf. de Bildt et al., 2005; Volkmar et al., 1987). Both the Vineland-II and its predecessor offer supplementary normative data for individuals with autism (though the Vineland offers a larger sample than the Vineland-II, cf. Carter et al., 1998), allowing the clinician to better understand the relative social competence of persons with ASD. The Socialization domain of the Vineland-II appears particularly well-suited for assessment of broadly defined social skills, with the inclusion of items assessing nonverbal communication to regulate social interaction, and the ability to keep and maintain personal relationships (Sparrow et al., 2005b, p. 4). Additionally, profile comparisons of autism and Asperger Syndrome, as well as autism and mental retardation are offered. It is clear that the Vineland has utility as a broad-based measure of social skills for persons with ASD.

The American Association of Mental Retardation (AAMR) Adaptive Behavior Scales, Second Edition (ABS; Nihira, Leland, & Lambert, 1993). The Adaptive Behavior Scales were designed specifically for individuals with developmental disabilities. Different forms are available for residential and community environments (ABS-RC:2, ages 18 through 80), as well as school environments (ABS-S:2, ages 3 through 21). Both tests are divided into two primary sections, with the first measuring aspects of daily living skills (including social behavior for the ABS-RC:2) and the second measuring problem behavior (and social domains for the ABS-S2). For the ABS-S:2, the Social Behavior section is comprised of the Social Adjustment, and Personal and Social Responsibility areas, which contain subdomains labeled Social Behavior, Conformity, Trustworthiness, Stereotyped and Hyperactive Behavior, Self-Abusive Behavior, Social Engagement, and Disturbing Interpersonal Behavior. The ABS

differs from the Vineland scales in its response format; items are scored as *yes/no*, as opposed to gradients of agreement with the behavior. A total score is not calculated for the ABS, though domain and subdomain age, percentile, and standard scores are offered.

Norms for the ABS-RC:2 are based on a sample of 4,103 individuals with developmental disabilities aged 18–79 years; no norms for typically developing individuals are available nor are ASD-specific profiles. Estimates of internal consistency and test-retest reliability are generally good (>0.80). The ABS-S:2 was normed on two public school groups; 1,254 students without disabilities, and 2,074 students with developmental disabilities. Good reliability and validity is also evident for the ABS-S:2, though the proposed five-factor structure has been challenged and a revised, two-structure model proposed (Stinnett, Fuqua, & Combs, 1999).

Other measures to consider: Adaptive Social Behavior Inventory (for children approximately 3 years of age; Hogan, Scott, & Bauer, 1992); Scales of Independent Behavior, Revised (Bruininks, Woodcock, Weatherman, & Hill, 1996).

Social skills measures for children

The Social Skills Rating System (SSRS; Gresham & Elliott, 1990). The SSRS was designed to "assist professionals in screening and classifying children suspected of having significant social behavior problems and aid in the development of appropriate interventions for identified children" (Gresham & Elliott, 1990, p. 1). These ends are achieved through different forms for preschool, elementary, and secondary school-age children, as well as for each type of informant (i.e., self-report for elementary and secondary school-age students, parent and teacher for all ages). Each form is comprised of two primary domains of behavior: "Social Skills" and "Problem Behaviors," with "Academic Competence" also surveyed for the teacher forms. Three-point, Likert-type scales are designed to measure frequency of behavior occurrence (i.e., "How often?"), as well as the importance of each skill to the informant (i.e., "How important?").

Estimates of reliability and validity of the SSRS vary somewhat across response formats. Internal consistency estimates are low to excellent (.63–.90) for parent and student forms, and good to excellent for the teacher forms. Test-retest reliability is excellent for the teacher form (.75–.93), fair to excellent for the parent form (.48 to .87), and fair to good for the student form (.52–.68). The SSRS has also been assessed as valid with respect to content, construct, and criterion validity (Gresham & Elliott, 1990, pp. 112–141). Factor analyses were conducted for each SSRS form for the Social Skills and Problem Behaviors domains. For the Social Skills domain, factors of "Cooperation," "Assertion," and "Self-Control" were identified, with "Responsibility" and "Empathy" also emerging for the parent and student report forms, respectively. Norms exist for grades Pre-K-12 for parent and teacher forms, and for grades 3-12 for the children's form; 4,170 children's self-ratings were included, as were 1,027 and 259 parent and teacher ratings, respectively. While the standardization sample included elementary school-age children with disabilities, no information is provided about students in this sample with ASD. In published research with persons with ASD, the SSRS has been used as a generalization measure in social skill treatment (cf. Ozonoff & Miller, 1995, as well as a means of determining differences in social functioning between persons with and without ASD (Koning & Magil-Evans, 2001).

Matson Evaluation of Social Skills for Youngsters (MESSY, Matson, 1994; Matson, Rotatori, & Helsel, 1983). The MESSY is a social skill checklist for children ages 4 through 18 that consists of a 62-item student-completed report and a 64-item teacher report. Items were derived from existing scales of child behavior by two independent raters who deemed the items as meeting an accepted definition of social skills. Each item is rated on a 5-point

Likert scale, with 1 representing "not at all" and 5 reflecting "very much." Factor analysis for the teacher report, the focus of this review, yielded two factors: "Inappropriate Assertiveness/Impulsiveness," and "Appropriate Social Skills." Scores on each of the subscales are considered "problematic" if they fall one standard deviation below the normative mean, and "very problematic" if they fall two or more standard deviations below the mean (Matson, Stabinsky Compton, & Sevin, 1991). Test-retest reliability for MESSY items has been assessed as fair to excellent for the teacher form (.40–.87), and poor to good for the self-report (.13–.65). The MESSY has been assessed with acceptable criterion and construct validity properties (Chao, 1997; Matson et al., 1983), though the original factor structure has been challenged (Spence & Liddle, 1990). Normative data for the teacher form was collected on a sample of 322 children (predominantly typically developing) in urban areas of Northern Illinois, and thus, is somewhat limited.

The MESSY is a widely used measure of social skills in typically developing children, and has been translated into at least four different languages (cf. Bacanli & Erdogan, 2003; Chao, 1997). It is also one of the few measures demonstrated to be sensitive to social skill differences between typically developing children and children with ASD (Matson et al., 1991), though this quality would presumably be extended to many social skill measures.

Other measures to consider: School Social Behavior Scales (Merrell, 1993); Walker-McConnell Scales of Social Competence and School Adjustment (Walker & McConnell, 1995a, 1995b).

BEHAVIORAL OBSERVATION

Direct observation of individuals with ASD in social environments can be one of the best means of conducting detailed assessment of particular social behavior of interest, as well as interpreting how responsive an individual is to contextual variables regarding exhibiting particular social skills. This method can also be useful in confirming others' interpretations of an individual's skill repertoire, including the results of informant-completed rating scales and has long been the method of choice in social skill treatment outcome research (see Taylor, 2001, for a review). Direct observation can occur under "naturalistic" conditions (e.g., playground, classroom, workplace) or in "analog" settings (e.g., under contrived conditions designed to simulate a particular context). For naturalistic observation, three conditions are desirable: (a) observation and recording of behaviors at the time of occurrence in their natural settings; (b) the use of trained, objective observers; and (c) a behavioral description system involving a minimal level of inference by the observers (Jones, Reid, & Patterson, 1979). Similar conditions would be important in analog settings, though some protocols are available in which predetermined behavior is rated.

Several descriptions are available of naturalistic observation procedures in assessing social differences in persons with ASD relative to typically developing populations (cf. Anderson, Moore, Godfrey, & Fletcher-Flynn, 2004). As with social skill rating scales, there are surprisingly few analog observation models for persons with ASD available in the literature. Two commercially available protocols are the *Autism Diagnostic Observation Scale* (ADOS; Lord, Rutter, DiLavore, & Risi, 1999), and *The Autism Screening Instrument for Educational Planning, Second Edition, "Interaction Assessment"* (ASIEP-II; Krug, Arick, & Almond, 1993). The ADOS was created as a diagnostic tool for autism spectrum disorders and contains four different modules that vary in analogue assessment methods according to the individual's language ability. Individuals with ASD of any age are assessed with respect to the full continuum of ASD symptomatology, though emphasis is placed on the domains

of Language and Communication, and Reciprocal Social Interaction. The latter allows the examiner to assess an individual's social-interactive behavior across a broad domain of manifestations, including eye contact, shared enjoyment in interaction, initiation and response to joint attention, quality of social overtures, language production and linked nonverbal communication, and insight. The ADOS is a reliable and valid diagnostic instrument (Lord et al., 1999).

The ASIEP-II was designed to assist in diagnosis, placement, educational planning, and progress analysis for individuals with ASD aged 18 months through adult, and is comprised of five separately standardized subtests. The "Interaction Assessment" subtest was designed to "evaluate relating skills through direct observation of the student's responses in a play setting" (Krug et al., 1993. p. 5), and utilizes a variety of observation methodologies, including time sampling, anecdotal recording, and frequency recording. The child's behavior is assessed across three phases ("Active Modeling," "Passive No Initiation," and "Direct Cues,") and is recorded with respect to four variables in each of the phases: "Interaction," "Constructive Independent Play," "No Response," and "Aggressive Negative". While research on the ASIEP-II Interaction Assessment is limited, evidence of interrater reliability, internal consistency, and construct validity is available (Krug et al., 1993).

SUMMARY

Autism Spectrum Disorders represent a cohort of pervasive developmental disorders characterized, in part, by significant impairments in social responding. Increasingly, learners of all ages with ASDs are being educated, employed, living, and regularly participating in the mainstream of community life which, unfortunately, tends to partially define its membership in terms of social competence thereby presenting a significant barrier to true inclusion for these individuals. Reliable and valid assessments of social competence that take into account normative variables, as well as individual specific ones (e.g., context, motivation, etc.), and consider behavioral response classes particularly relevant to ASD would appear to be a critical component in lowering that barrier. Surprisingly little research with such qualities has been conducted and is in great need.

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Chapter 14
Schizophrenia

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This chapter describes assessment of social skills and social competence in people with schizophrenia and other severe and disabling psychiatric conditions. The sections of this chapter cover (1) a brief discussion of the construct of schizophrenia including the importance of addressing social skill deficits, (2) the impact of social skills deficits on mental health policy and services, (3) the evolution of key concepts and principles relevant to a behavioral, social learning-oriented perspective on schizophrenia, (4) assessment of social skills and competence in the context of comprehensive biopsychosocial case formulation, and (5) descriptions of instruments that assess the cognitive and behavioral levels of social skill and social competence.

SOCIAL SKILLS DEFICITS IN SERIOUS MENTAL ILLNESS

The modern concept of "schizophrenia" is usually traced to Emil Kraepelin's (1919/1971) comprehensive diagnostic classification system for psychiatry. Kraepelin believed that there is a specific illness, which he named *dementia praecox* (early dementia), a form of progressive neuropathy, comparable to other dementias whose onset is later in life, such as those we now recognize as general paresis (dementia associated with syphilis), Alzheimer's disease, and others. Kraepelin believed that dementia praecox is associated with an onset in late adolescence or early adulthood, and progressive mental deterioration

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throughout life, often ending in a vegetative state. A key defining characteristic of this "disorder" identified by both Kraepelin and Bleuler (Bleuler, 1911/1950) was a noticeable deficit of social competence.

While the term "Schizophrenia" survived as the diagnostic term in the modern diagnostic lexicon, as canonized in the four editions of the American Psychiatric Association's *Diagnostic and Statistical Manual* (American Psychiatric Association, 2000), the contemporary inclusive terminology *serious mental illness* (SMI) is often used to identify a population with common needs and circumstances, especially for the purposes of mental health policy. Although these distinctions appear somewhat arbitrary, the use of SMI reflects common characteristics among other diagnostic labels such as schizophreniform disorder, bipolar disorder, major depression, severe alcoholism, and schizoid, schizotypal, paranoid and borderline personality disorders. For clinical purposes, these diagnostic categories are subsumed under the term SMI mostly because of the associated dysregulation of social functioning and disordered development which often occurs during key phases of social skill development.

Social skills are defined in many ways throughout this publication. For the purposes of this chapter, the broad definition is the set of learned experiences one uses to communicate intention and emotion effectively. These experiences include acknowledging and recognizing social information, processing social information of oneself and others, and conveying (verbally and nonverbally) social information and assuring that it has been understood correctly. Deficits of social skills in SMI often occur as a result of interruptions in the developmental process, acquisition of inappropriate or insufficient skill sets, and interference from positive and negative symptomatology. Positive symptoms such as auditory hallucinations, thought broadcasting, and paranoia interfere with normal social interaction and make it difficult for people diagnosed with an SMI to interact normally and establish appropriate and healthy social relationships with others.

Even in the absence of positive symptoms or when positive symptoms are reduced through pharmacotherapy, negative symptoms such as affective flattening, alogia, and avolition (particularly with respect to goal-directed social behavior) may persist, thus illuminating social skills deficits. Deficits in these areas are often noticeable early in the clinical interview as well as in everyday interaction. The conclusions drawn from nonverbal cues and details provided through oral responses is used to guide behavior, and it is these deficits which contribute to many of the difficulties people diagnosed with an SMI face with respect to social relationships and occupational functioning.

The construct of *social skills* and the closely related construct of *social competence* have proved useful in psychiatric rehabilitation because they identify a domain of cognition, abilities and behaviors that are often impaired, deficient, dysfunctional, and absent or compromised in people diagnosed with a SMI, in ways that negatively affect personal and social functioning and quality of life. Social competence is highly correlated with community functioning (Bellack, Morrison, Wixted, & Mueser, 1990). As few as 11% of people diagnosed with schizophrenia consistently fall within the normal range on repeated assessments of social skills (Mueser, Bellack, Douglas, & Morrison, 1991). Most importantly, treatment interventions designed to improve social competence in SMI produce beneficial outcomes (reviewed by Halford & Hayes, 1991). These findings taken together indicate that social skills and social competence have ecological validity as outcome measures, and are also appropriate targets for direct treatment, in the recovery of people diagnosed with an SMI. Therefore, the need to properly assess the extent of these deficits is necessary in determining the best course of treatment and level of care necessary to aid the recovery process.

THE IMPACT OF SOCIAL SKILLS DEFICITS IN SERIOUS MENTAL ILLNESS

Estimates of the social and economic costs of diseases usually rank schizophrenia among the most costly, with heart disease and cancer. Combining the costs of more forms of SMI would thus increase this figure. High costs are in large part because people diagnosed with an SMI often incur lifelong disability, are prescribed costly medications, and are often involved in some form of ongoing mental healthcare. As previously mentioned, social skills deficits often make employment more difficult, as do employment absenteeism, limited availability of vocational and occupational rehabilitation, and financial restrictions associated with disability status. In recent years there has been growing recognition that the devastation associated with SMI results not only from the condition itself but from the social prejudice and discrimination applied to people diagnosed with an SMI (although rigorous experimental research supporting this dates back at least to the 1960s; reviewed by Magaro, Gripp, McDowell, & Miller, 1978). Ancient cultural notions of "insanity" as an "incurable disease" operate in our modern world to isolate and disenfranchise people so labeled, and this inevitably brings hopelessness, despair, abject poverty, and desperation. Science-based approaches to treatment and rehabilitation have so far had limited effect on these cultural consequences.

Fortunately, recent years have seen increasing activism on the part of people diagnosed with an SMI and their families. The single most important product of this activism has been widespread recognition of the concept of *recovery*, which focuses largely on social reintegration and support, and integration of that concept in mental health policy and clinical practice (President's New Freedom Commission on Mental Health, 2003). The implications of the recovery concept for research and practice are just beginning to be articulated (e.g., Bellack, 2006), although it is already clear that it will engender a revolution in mental health policy. It also appears reasonable to expect that the recovery movement will prove compatible with, and probably complementary to, the research and practice agendas of behavioral assessment and treatment.

SERIOUS MENTAL ILLNESS AND BEHAVIORAL RESEARCH

Behavioral, social learning theory-based research has contributed substantially to understanding and treating clinical problems associated with schizophrenia, although the findings are generally applicable to broader categories (i.e. schizophrenia spectrum disorders and SMI). Early behavioral research on the social dynamics of psychiatric institutions (e.g., Braginsky, Braginsky, & Ring, 1969; Gelfand, Gelfand, &Dobson, 1967), operant and social learning-based treatment approaches (e.g., Ayllon & Azrin, 1968; Paul & Lentz, 1977) and social skills training (e.g., Liberman, King, & Derisi, 1975; Monti et al., 1979) were landmarks in the development of modern behavioral assessment and treatment, and not just for SMI. Social skills training in particular has produced one of the largest and most robust databases of any psychosocial treatment for SMI (e.g., Wallace & Liberman, 1985; Liberman, Mueser, & Wallace, 1986; Halford & Hayes, 1991; Corrigan, Schade, & Liberman, 1992) and is used throughout the world.

Nevertheless, in practice, behavioral and social learning-based methods are underutilized. This reflects in part a general lag in dissemination and application of "new"

treatments for SMI, especially psychosocial (non-pharmacological) treatments (Lehman et al., 1998). In addition, research and treatment of SMI has historically occupied only a small minority of behaviorally oriented clinicians, so much so that Alan Bellack, in his Association for Advancement of Behavior Therapy presidential address (Bellack, 1986), lamented that schizophrenia had become "behavior therapy's forgotten stepchild." On the other hand, Bellack (1986) also identified a strong social mandate for increased use of behavior therapies for SMI, and subsequent developments in mental health policy have borne that out. Behavioral and social learning perspectives are well represented in contemporary SMI research (e.g., Heinssen, Liberman, & Kopelowicz, 2000); although the observations of Bellack (1986), and the findings of Lehman et al. (1998) indicate that systematic attention must be paid to issues of dissemination and application, as well as to the basic science.

Psychiatric rehabilitation (Anthony, 1979; Anthony and Liberman, 1986) is a comprehensive approach to assessment and treatment of SMI that has provided an important venue for development of behavioral and social learning-based methods and techniques. Psychiatric rehabilitation began in the 1970s as a translation of the principles and practices of rehabilitation psychology into the psychiatric context, especially as applied to SMI. Rehabilitation psychology was already heavily influenced by social learning theory and behavioral assessment and treatment, and this was transferred to psychiatric rehabilitation. As in other areas of behavioral assessment and treatment, psychiatric rehabilitation also assimilated principles and methods from psychophysiology, cognitive psychology, and neuropsychology. Behavioral assessment also became a key tool for assessing pharmacotherapy. As a result, psychiatric rehabilitation became a multimodal, multi-method, interdisciplinary approach that integrates biological, cognitive, behavioral and socio-environmental levels of analysis and intervention (the term *biopsychosocial rehabilitation* is sometimes used interchangeably with psychiatric rehabilitation). Psychiatric rehabilitation has also evolved in parallel with the recovery movement to the degree that psychiatric rehabilitation can be understood as the technology of recovery. Today, psychiatric rehabilitation and recovery are becoming the dominant paradigm for assessing and treating SMI (for contemporary accounts of psychiatric rehabilitation, see Wallace, Liberman, Kopelowicz, & Yaeger, 2001 and Spaulding, Sullivan, & Poland, 2003). This is the paradigm that best provides the larger scientific and clinical contexts for assessment of social skills.

CLINICAL ASSESSMENT AND FORMULATION OF SOCIAL SKILLS IN SERIOUS MENTAL ILLNESS

For the behaviorally oriented clinician, the questionable construct validity of the diagnosis of schizophrenia and the heterogeneity of the population in question lead to a familiar implication: The key to clinical effectiveness is *functional assessment* of specific and measurable cognitions, abilities, and behaviors that vary across individuals within any diagnostically defined population. These cognitions, abilities, and behaviors are brought to the clinician's attention as potential targets for treatment because they have observable impact on the client's personal and social functioning and quality of life.

Valid assessment of social skills and social competence is key to developing more effective treatment interventions and to optimizing rehabilitation outcome for one person at a time. Behavioral assessment research, treatment development, and focused review of social skills modalities have produced an armamentarium of instruments suitable for

assessing various aspects of social skill and competence in people diagnosed with an SMI, and these will be described in Section "Measures of Social Skill and Competence" of this chapter (e.g., Couture, Penn, & Roberts, 2006; Kopelowicz, Liberman & Zarate, 2006; Roder, Mueller, Mueser & Brenner, 2006). First, however, it is important to consider some complicating factors, more pertinent to SMI than other areas or clinical problems.

SMI are *pervasive*, in the sense that impairments, deficits, or other abnormalities are observed across physiological, neuropsychological, cognitive, behavioral and socio-environmental levels of functioning. These abnormalities exert mutual influence. In any particular individual, any particular abnormality, such as a social skill deficit, may be a product of neurophysiological, neuropsychological, cognitive, or environmental factors. In addition, any particular skill may be the product of either a *competence* deficit (i.e., resulting from insufficient knowledge) or a *performance* problem (i.e., one that prohibits an otherwise competent person from performing the skill at the right time). For both clinical and research purposes, it is important to fully assess functioning at all levels, and in an environmental context, so that deficient performance of social skills can be understood in relation to other potentially influential factors.

The first imperative in functional assessment and formulation of SMI is to address acute psychosis, which is extremely distressing to the affected person, is associated with high risk for suicide and aggression, interferes with basic behavioral functioning, and limits accessibility of many psychosocial treatments. Psychiatric medication is usually beneficial for controlling acute psychotic symptoms. However, pharmacotherapy is not the sole treatment for acute psychosis. Various types of therapeutic milieu can enhance or even supplant pharmacotherapy (Strauss & Carpenter, 1977; Paul & Lentz, 1977; Mosher, 1999), although the strongest evidence is associated with therapeutic milieu based on social learning principles (Paul & Lentz, 1977; Glynn & Mueser, 1986).

Although a myriad of interactive factors may underlie psychotic reactions, for better or for worse, current treatments nearly always include pharmacotherapy. While these forms of treatment are not generally the purview of non-physicians, the behaviorally oriented clinician should expect to be heavily involved in the evaluation of these treatments. This is because the effects of pharmacotherapy are evaluated almost exclusively at a behavioral level of analysis. The behavioral assessment armamentarium includes a diversity of observational and interview-based instruments for assessing acute psychosis. These will not be described here, but are accessible in comprehensive accounts of clinical behavioral assessment (e.g., Bellack & Hersen, 1998) and more specialized accounts pertinent to SMI (e.g., Serper, Goldberg, & Salzinger, 2004).

Any cognitive or behavioral measure may be profoundly affected by acute psychosis. Deficits observed in social skills assessments during acute or post-acute psychosis may not be present after more complete resolution of the psychotic episode. Treatment of skill deficits that are only present during acute psychosis would usually focus on preventing subsequent psychotic episodes, not on reversing the deficits. However, recovery from acute psychosis can be gradual and protracted, and it is often impractical to wait for full resolution before proceeding with assessment of other domains of functioning. In fact, it often cannot be confidently determined whether the person has returned to baseline, or whether the baseline has shifted in the course of the psychosis. Therefore, social skills assessment data must often be collected under less than ideal conditions and must be interpreted with careful consideration of the possible role of acute psychosis in transient deficits.

A similar type of potential confound is generated by the interaction of motivational and learning factors with SMI. As the early behavioral research showed (Braginsky et al., 1969;

Gelfand et al., 1967), institutions can produce "perverse" motivations and learning conditions that create the appearance of "impaired" behavior, including social skill deficits. The neuropsychological impairments associated with SMI may enhance these effects by decreasing the time frame over which salient reinforcers influence behavior (Salzinger, 1973, 1984). Consideration of the larger environmental context is always necessary in the interpretation of any behavioral data associated with SMI.

Comprehensive case formulation for SMI is a complex task, requiring repeated assessment across all levels of biopsychosocial functioning. Systematic approaches for conducting such assessment in the context of psychiatric rehabilitation are beginning to appear (e.g., Pratt & Meuser, 2002; Spaulding et al., 2003). Use of such systematic approaches will be increasingly necessary as psychiatric rehabilitation technology becomes increasingly sophisticated, including the technology for assessing social skills and competence.

MEASURES OF SOCIAL SKILL AND COMPETENCE

As in other areas of social skills assessment, measures of social skills and competence suitable for SMI have increasingly included a cognitive, as well as a behavioral level of analysis. For heuristic purposes, instruments in current use can be sorted into 5 categories:

1. Self-report measures of social comfort, coping and functioning
2. Questionnaire measures of attitudes and perceptions
3. Performance measures of social perception and cognition
4. In vivo observational measures of social behavior
5. Role-play-based laboratory measures of social competence

Self-Report Measures of Social Comfort, Coping, and Functioning

Ways of Coping Questionnaire (Revised) (Folkman & Lazarus, 1985)

The Ways of Coping Questionnaire (Revised) is a 66-item self-report questionnaire in which clients are asked to describe or write about a stressful event, including who was involved, where the event took place, and what happened. Participants are then asked to rate various coping strategies, including thoughts and behaviors on a 4-point Likert scale (0 = *does not apply and/or not used*, 1 = *used somewhat*, 2 = *used quite a bit*, 3 = *used a great deal*).

The Ways of Coping Questionnaire (Revised) provides a broad array of coping strategies that range from appropriate actions (e.g., Item 2: "I tried to analyze the problem in order to understand it better.") to socially inappropriate actions (e.g., Item 47: "Took it out on other people.") and has been validated using two independent samples.

The first validation sample (Folkman, Lazarus, Dunkel-Schetter, DeLongis, & Gruen, 1986) comes from a community sample of 75 married couples interviewed monthly for five months. Following a series of analyses, 8 scales emerged: Confrontive coping, Distancing, Self-controlling, Seeking social support, Accepting responsibility,

Escape-Avoidance, Planful problem solving, and Positive reappraisal. The second validation study was completed with 108 undergraduate students (Folkman & Lazarus, 1985). Again, this study yielded 8 scales: Problem focused coping, Wishful thinking, Distancing, Seeking social support, Emphasizing the positive, Self blame, Tension reduction, and Self isolation. Although these scales are somewhat different, the authors point out that the range of stressful situations was much broader among the married couples sample compared to the college student sample. Thus, the authors recommend using the scales derived from the married couples study (Folkman et al., 1986). The authors indicate that this measure is intended as a process measure and that it should not be used to assess coping styles or traits, as this measure is designed to measure context-specific coping strategies (Folkman & Lazarus, 1985).

Research using the Ways of Coping Questionnaire in SMI has shown support for its use as a tool to identify coping styles, consistent with age and neurocognitive functioning (Lysaker, Bryson, Lancaster, Evans, & Bell, 2003). A study conducted by Lysaker et al. (2003) examined awareness of illness, coping style, and executive functioning using a sample of people diagnosed with schizophrenia spectrum disorders ($N = 132$). Participants in this study were determined to be either "aware," "partially unaware," or "unaware" of the symptoms of their mental illness. Those participants who were determined to be unaware of the symptoms of their illness scored higher on the Positive Reappraisal subscale than did those who were aware or partially unaware of their illness. Furthermore, "unaware" participants also had higher scores on the escape-avoidance scale than did the "partially unaware" participants. Additionally, the Ways of Coping Questionnaire has also been shown to be sensitive with respect to changes in symptoms, neurocognitive functioning, and self-efficacy (Lysaker, Clements, Wright, Evans, & Marks, 2001). When assessing neurocognition, coping, hope, and self-efficacy, Lysaker et al. (2001) found that participants who had poor executive functioning and verbal memory had higher well-being and hope compared to those with less cognitive impairment.

Although the authors caution about the use of this instrument for assessing coping styles, the information provided can indicate the presence or absence of appropriate coping strategies and may indicate the need for social skills training. Furthermore, the Ways of Coping Questionnaire has been shown to provide useful data with respect to coping style that can help to explain the relationship among other treatment variables which may greatly impact social skill and competence.

Coping Strategies Task (Mindt & Spaulding, 2002)

The Coping Strategies Task [CST] is a 67-item self-report questionnaire used to determine which coping strategies clients use when encountering a stressful situation. The assessment begins with the clinician asking the client to think about a stressful situation and how that client responded to the situation. Clients then respond using an interactive Likert scale in which they place slips of paper with the test items into bins labeled 0-None of the time, 1-Some of the time, 2-Most of the time, 3-Almost always. An initial validation study (Mindt & Spaulding, 2002) was completed with a seriously mentally ill population receiving biopsychosocial rehabilitation in an inpatient setting. From this study, 4 scales emerged: Self-controlling, Planful problem solving, Escape-avoidance, and Social support seeking. Support for these factors came from staff observations of patient behavior and executive functioning as measured by neuropsychological assessments.

Similar to the Ways of Coping (Revised), the CST provides information about which coping strategies clients use when encountering specific stressors. These data provide

the clinician with areas of social cognitive deficits and the strategies used can indicate specific areas of social skill deficit when neuropsychological functioning is known. Furthermore, these data can help to inform functional assessment and skills training needs.

Questionnaire Measures of Attitudes and Perceptions

Inventory for the Measurement of Self-Efficacy and Externality (Krampen, 1991)

The Inventory for the Measurement of Self-Efficacy and Externality [I-SEE] is a 32-item self-report questionnaire in which clients are asked to evaluate the degree to which they agree with trait-like statements that are then rated on a 6-point Likert scale (strongly disagree; strongly agree). The I-SEE is an English translation of the original questionnaire (FKK; Fragebogen zur Kompetenz und Kontrollüberzeugungen) published by Krampen in 1989.

The trait-like statements (e.g., "Whether or not other people respect my wishes is mostly up to me.") provide context for the client's level of agreement or affiliation with each statement or attribution. This assessment provides clinicians with information about the client's locus of control (internal vs. external) as measured by 4 scales. The 4 scales (Internality, Self-concept, Powerful others, and Chance) are based on Levenson's IPC scales (Levenson, 1981) which provided a more complete conceptual framework for the interaction of clients' perceptions of control over life events. The FKK has been shown to be sensitive to skill training in the particular domain of social competence related to management of one's psychiatric illness (Schaub, Behrendt & Brenner, 1998), suggesting that locus of control as measured by this instrument is relevant to social competence in SMI.

In a study of involuntary inpatient treatment, Rothmann (2006) used the I-SEE to measure self-efficacy. In this study, it was discovered that there were few differences in self-efficacy comparing patients with legal guardians and those without legal guardians. Although there were no significant differences in these populations, results revealed that those patients who were admitted voluntary per guardian had higher scores of externality than did those who were committed by civil court. Additionally, Rothmann (2006) found that patients who received intensive inpatient biopsychosocial treatment in a social learning-based treatment program demonstrated significant decreases in externality as measured by the I-SEE 12 months post admission. These results are compelling because they not only show that the I-SEE is sensitive to changes of self-efficacy in SMI, but also indicate that social skills training and other psychosocial treatments have a positive impact on changing social cognition.

Internal, Personal, and Situational Attributions Questionnaire (Kinderman & Bentall, 1996)

The Internal, Personal, and Situational Attributions Questionnaire [IPSAQ] is a 32-item questionnaire which can be self-administered or administered by a clinician. Clients are asked to read a series of hypothetical scenarios in which they have to imagine themselves having an interaction with another person. In these scenarios, clients must first decide what caused the scenario and record that response. Clients must then decide who/what caused the scenario (i.e., "Something about you?"; "Something about the other person or people?"; or "Something

about the situation (circumstances or chance)?"). The resulting data provide a measure of the client's causal locus of control.

The IPSAQ measures both positive and negative events and the responses generate two measures of internality, a measure of self-blame, and a measure of the extent to which external attributions implicate other persons as opposed to situations (Kinderman & Bentall, 1996). Internal consistency of the IPSAQ has been reported to have a range of 0.61–0.76 for each subscale (Humphreys & Barrowclough, 2006). Research using the IPSAQ with SMI populations has found evidence that those people who perceive more of the scenarios as being due to situational factors also show more overt paranoid symptoms (Kinderman & Bentall, 1996).

The IPSAQ has been used to examine differences in attributional style related to persecutory delusions and paranoia in SMI (Humphreys & Barrowclough, 2006), as well as causal locus in a range of symptomatology (Kinderman & Bentall, 1997). In a study of attributional style comparing depressed sample, a paranoid sample, and a nonclinical sample, Kinderman and Bentall (1997) found that the paranoid sample made more external attributions than did those who were depressed or without symptoms. These results are of note, as they illustrate that the IPSAQ can be used to detect patterns of attributional style that may be amenable to treatment. In addition, knowing the attributional style of a client diagnosed with an SMI is useful in treatment, as it may affect the interaction of the clinician and the client and may help to explain particular behaviors and cognitions.

Performance Measures of Social Perception and Cognition

The Hinting Task (Corcoran, Mercer, & Frith, 1995)

The Hinting Task is a 10-item theory of mind (ToM) assessment that requires clients to make social judgments about the intentions of the protagonist in each brief story. Each of the 10 items is made up of veiled speech acts (Corcoran & Frith, 2005) and after reading these stories clients are asked what the protagonist meant when he/she said something. Essentially, the stories provide a social context and characters in which the clients must mentally put themselves (the theory of mind basis) in order to correctly determine what the protagonists' intentions were.

Clients who give the correct response without additional hints receive 2 points for each item (total of 20 points). Depending on the level of deficit, some participants may require an additional hint which can be added as a follow-up to each item. These hints involve the character(s) speaking and provides additional context. Clients who give a correct response following this hint receive 1 point. Corcoran and Frith (2005) state that there is a ceiling effect when used with most adults; however, lower scores on this measure are not uncommon and have been associated with at times severe social skills deficits.

Deficits in theory of mind appear to be associated with severe deficits in social competence and are probably associated with the developmental neuropsychological impairments associated with schizophrenia spectrum disorders (Corcoran & Frith, 2005; Schenkel, Spaulding, & Silverstein, 2005; Penn, Combs, & Mohamed, 2001). There is some evidence that modified social skills training techniques can reduce theory of mind deficits, possibly enhancing social competence (Kayser, Sarfati, Besche, & Hardy-Bayle, 2006; Penn et al., 2005). There has been evidence that people diagnosed with a SMI perform more poorly on the Hinting Task than people with a mood disorder or nonclinical symptoms, especially when more positive symptoms are present (Marjoram et al., 2005). These are preliminary findings, but the near future will probably see much new research on this cognitive aspect of social

competence and social skills training for SMI. Given the importance of theory of mind in social skill and competence, use of the Hinting Task in treatment planning and assessment of SMI would greatly benefit the clinician and client in terms of individualizing treatments that may facilitate recovery.

Means-Ends Problem-Solving Procedure (MEPS) (Platt & Spivack, 1975a)

The Means-Ends Problem-Solving Procedure [MEPS] is a 10-item interpersonal problem-solving assessment that involves the client being given 10 situations in which a stated need and desired outcome are given (Platt & Spivack, 1975a).

In this assessment, the client has to provide the middle portion of the story so that the protagonist achieves the stated goal. Similar to the Hinting Task, the MEPS requires the client to utilize social skills and problem-solving skills to help the protagonist achieve the outcome in a logical manner. This means that the client must have the ability to take the perspective of another person and utilize experience from her or his own experience. Platt and Spivack (1975b) indicate that it is possible to achieve a valid measure of social problem-solving abilities without administering all 10 items. This can be beneficial when the MEPS is used with other clinical assessments as the time required of the client can be reduced.

There is consistent evidence that SMI is associated with poor problem-solving skills (Platt & Spivack, 1974; Yamashita, Mizuno, Nemoto, & Kashima, 2005). In many of these studies, the MEPS was used to establish or examine problem-solving abilities (Coche & Flick, 1975; Platt & Spivack, 1974; Yamashita et al., 2005). The MEPS has been used as a skills training assessment, a treatment outcome assessment, and a research tool. In each of these cases, the MEPS has been shown to be sensitive to changes in problem-solving skills, which are fundamental in the acquisition and use of social skills (e.g., identifying the situation, choosing appropriate responses, etc.).

In Vivo Observational Measures of Social Behavior

The Nurses' Observation Scale for Inpatient Evaluation (NOSIE-30) (Honigfeld, Gillis, & Klett, 1965)

The Nurses' Observation Scale for Inpatient Observation [NOSIE-30] is a 30-item ward behavior rating scale used by staff to assess a wide range of client behavior and self-care in inpatient mental health settings. This naturalistic assessment has been widely used since its development in various inpatient mental health settings in the United States and internationally.

The NOSIE-30 requires health care staff (usually staff who have the most interaction with clients) to carefully observe clients for 3 days before making their ratings on a 5-point Likert scale (never; always). After the period of observation, staff members make ratings based on the overall behavior of the clients for the 3-day period. Although not part of the original development of the instrument, two separate ratings from different staff can be combined to determine the scores. By using this interrater design, the idea is that various interpersonal effects among staff and clients can be minimized.

The NOSIE-30 yields 6 subscales and a total score. The subscales include daily schedule competence, social interest, personal neatness, irritability, psychoticism, and psychomotor retardation. For the purposes of this chapter, the social interest subscale is the most relevant. The social interest subscale is made up of 5 items that include statements about the clients'

social interactions and skills observed (e.g., Item #17: "Starts a conversation with others."). The social interest subscale has a score range of 0–40 points with higher scores indicating more interest.

Using the social interest subscale as a measure of social functioning, the NOSIE-30 is often used as a behavioral tracking assessment in social learning programs (Penn, Spaulding, Reed, & Sullivan, 1996; Rothmann, 2006), randomized-controlled clinical trials and other medication studies (Geller, Gorzaltsan, Shleifer, Belmaker, & Bersudsky, 2005; Lane et al., 2004), and in treatment intervention studies (Hao, Yanli, Yinggiang, 2003; Li, 2004). Use of the NOSIE-30 is supported for use in SMI, and analyses have yielded an internal consistency of the subscales to be 0.68–0.72 (Penn, Mueser, Spaulding, Hope, & Reed, 1995; Spaulding, Reed, Sullivan, Richardson, & Weiler, 1999). More recently, Lyall, Hawley, and Scott (2004) reexamined the NOSIE-30 and found it to be reliable in modern treatment settings. Lyall et al. report inter-rater reliability on the total assets score as 0.76, on maladaptive scales as 0.68, and adaptive scales as 0.75. Given the perdurability of the NOSIE-30 as a milieu behavior assessment, the information provided by the social interest scale remains useful in treatment settings and research and can provide clinicians with relevant in vivo information regarding client social behavior.

The Time-Sample Behavioral Checklist (TSBC) (Paul, 1987) and the Staff-Resident Interaction Chronograph (SRIC) (Paul, 1988)

The Time-Sample Behavioral Checklist [TSBC] is an observational assessment of client behavior used in inpatient mental health settings. The TSBC is used by highly trained observers who observe and code all the client's behavior at various points throughout the day. There are 69 behavioral codes across 7 categories which include Location, Physical Position, Awake-Asleep, Facial Expression, Social Orientation, Concurrent Activities, and Crazy Behavior. The Appropriate Social Interaction score, which is a product of various observations, has proven to be a successful predictor of successful inpatient discharge, as well as successful community functioning. Using these categories, a total appropriate behavior score is obtained for which the client can score an unlimited amount of points.

For the purposes of this chapter, the TSBC provides direct observational data about the number of socially appropriate behaviors demonstrated by a client. These behaviors can be understood within a context of the environment and the interaction with others. Extensive research has been done using the TSBC (Paul, 1987) all indicating it is a reliable and valid instrument when the observers are trained according to the protocol.

The Staff-Resident Interaction Chronograph [SRIC] is a complex observational assessment instrument used in mental health settings that involves direct observational coding of staff. The SRIC requires specially trained observers, who must meet rigorous reliability standards and who do not interact with staff or clients, to observe a single clinical staff member during a 10-min observation period. The SRIC uses 94 codes to record staff and client interactions. In addition, 3 codes are used to record non-interactive staff behavior for each minute of the observation period. The observers must also record the time, location, activity, and number of clients assigned to the staff.

Extensive research has been done using the SRIC (e.g., Paul & Lentz, 1977; Paul, 1987, 1988) which is also used along with the TSBC. The combination of the TSBC and the SRIC in clinical settings, particularly social learning programs and biopsychosocial rehabilitation programs, is considered to be at the pinnacle of technological innovation in this area. In fact, information produced by the TSBC/SRIC have been shown to predict successful discharge with 95% accuracy, successful community functioning 18 months post discharge

($r = 0.60$–0.80) (Paul, 2000). These instruments can provide direct clinical evidence for decision making, treatment planning, and environment of care issues. Because observers are coding the actual social interactions of staff and client, social skills deficits and staff education and training concerns can be addressed to improve treatment and outcomes.

Role-Play-Based Laboratory Measures of Social Competence

Assessment of Interpersonal Problem Solving Skills (AIPSS) (Donahoe et al., 1990)

The Assessment of Interpersonal Problem Solving Skills [AIPSS] is considered the gold standard of social skills assessment by most researchers. This measure uses in vivo role-plays to assess level of functioning in situations requirement social skills and is thus considered to be a more adequate and a better measure than self-report and paper-and-pencil measures (Segrin, 1998). Psychometric properties indicate that the AIPSS is a relatively reliable measure (test-retest reliability: 0.46–0.77 general scoring, 0.56–0.84 specific scoring; interrater reliability: no significant differences between raters; and internal consistency: alpha coefficients 0.64–0.74 general for general scoring, 0.69–0.93 for specific scoring).

The AIPSS targets and assesses receiving (identification of problem, if one exists), processing (coming up with possible responses to the given problematic situation), and sending skills (role-playing scenarios integrating the identified responses). It consists of 13 video-taped interactions of which 10 contain problematic situations, and 3 situations are without any problems. Clients are asked to identify with one of the actors and are then asked several questions about each scene. After watching each scene, clients identify the problem (if there is one), generate alternative ways in which they would act in the given situation, and role-play their alternative solutions. The clients' role-plays are videotaped and later coded by two trained raters with a scoring manual for content, performance, and overall quality. Other coding methods that could be used include audiotaping or in vivo coding. However, video recording the interaction is viewed as the best and most reliable way to get the desired information, as the raters can rewind the tape and code one behaviors at a time. Clients often have inaccurate perceptions of their own performance; thus, performance ratings should be completed by trained raters. However, client self-ratings may be beneficial to consider alongside other information when planning treatment approaches. The coding may be done on either or both of the following levels: (1) the molecular level focuses on the basic elements of interpersonal communication, specific verbal and nonverbal responses such as gaze and speech duration, as well as the overall duration, frequency, and occurrence of the interaction; (2) at the molar level the focus is on more qualitative and global judgment of overall social skill such as ease of interaction and appropriateness of interaction and conversation.

When training raters it is important to have clear operational definitions for the target behaviors and to run through practice trials in order to establish inter-rater agreement regarding the coding of the criterion. Clients are instructed to interact as they typically would, to the best of their ability, or as they believe socially skilled people would perform. Finally, confederates involved in the role-play are also instructed to perform as they typically would, as best they can, or as they have observed others behaving with the client. It is helpful to establish how friendly the confederate should be and how much help she/he is to provide during the interactions.

The AIPSS has been used in SMI research and has been shown to be ecologically valid and provides a detailed assessment of interpersonal problem-solving abilities in SMI (Spaulding et al., 1999). Additional information about the reliability and validity of the AIPSS

can be obtained from Donahoe (n.d.). Although the AIPSS can be somewhat time consuming and thus expensive to administer, it provides a very detailed assessment of social problem solving and may be useful as a stand-alone measure when other forms of social skill and competence assessment are unavailable.

The Maryland Assessment of Social Competence (MASC) (Bellack & Thomas-Lohrman, 2003)

The Maryland Assessment of Social Competence [MASC] is a social skills measure designed for SMI that uses structured role-plays to assess individuals' ability to solve common problems in an interpersonal context.

Administration of the MASC is fairly straightforward, as it consists of four role-plays and takes about 20 min to complete. Role-play scenarios include initiating a conversation with a casual acquaintance, a discussion with a health care worker, a conversation involving compromise and negotiation, and a conversation involving standing up for one's rights. Depending on the characteristics of the client, the role-plays can be altered to include situations and conversation topics that are relevant to the client (Bellack, Mueser, Gingerich, & Agresta, 2004). It is important to make sure that the client understands the instructions before beginning. To that extent, it is helpful to use index cards with descriptions of each scenario as well as to read the instructions and to provide the information in a written format. The MASC includes a set of prompts for the role-playing staff member, providing various options of response and prompts to the client's responses during the role-play. The role-plays are videotaped in order to make rating for verbal skills (conversation content), non-verbal skills (eye-contact, body posture, gestures), and the overall effectives (ability to achieve goal) of the client's behavior easier. Items are scored on a 5-point scale (ranging from "very poor" to "very good") to provide an overview of the clients' skills and abilities on each of the three dimensions (verbal skills, nonverbal skills, and effectiveness of communication and behavior in a given situation). The measure was empirically developed and validated and has relatively good discriminant validity. In addition, the MASC has been shown to be sensitive to changes in verbal and nonverbal social skills and was used to track these skills over time (Bellack, Schooler et al., 2004) when comparing the effects of clozapine and risperidone treatment.

In the treatment and assessment of SMI, the videotaped results of the MASC can be helpful to establish pretreatment and posttreatment changes in social skill as well as client adaptation to context-specific social performance.

CONCLUDING REMARKS

The assessments of social skills and social competence covered in this chapter do not represent an exhaustive list. Instead the assessments detailed here are those which have abundant research support for use in SMI. As previously mentioned, a complete functional assessment of social skills not only includes the specific use of empirically supported measures but also takes into account the client's individual characteristics and values and environmental and social variables, within the contextual cues of treatment and clinician expertise. Reports by others who are in frequent contact with the individual, as well as information gathered from self-rating assessments and self-report questionnaires and ongoing self-monitoring assignments offer a more complete picture of the client's level of functioning. Thus, as with any other type of thorough clinical evaluation, gathering converging evidence for the clients' specific problems is crucial in informing quality treatment.

Other measures of social skill (e.g., Social Skills Checklist (Bellack, Mueser, et al., 2004); Rathus Assertiveness Schedule (Rathus, 1973)), for which there is limited or growing support in SMI, may prove useful in providing a more detailed case conceptualization and contributing to treatment planning. In addition there are a few books which provide specific resources related to social skill deficits, treatment planning, and assessment for clinicians who work with people diagnosed with an SMI. These are: *Social Skills Training for Schizophrenia: A Step-by-Step Guide, Second Edition* (Bellack, Mueser, et al., 2004); *Treatment and Rehabilitation of Severe Mental Illness* (Spaulding, et al., 2003); and the chapter *Social Skills Training and the Nature of Schizophrenia* (Liberman, Nuechterlein, & Wallace, 1982).

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Chapter 15
Assessment of Social Skills in Substance Use Disorders

Lindsay S. Ham and Tracey A. Garcia

ASSESSMENT OF SOCIAL SKILLS IN SUBSTANCE USE DISORDERS

The purpose of this chapter is to provide a brief overview of the assessment of social skills in individuals with substance abuse, substance dependence, or in recovery from a Substance Use Disorder (SUD), for researchers and clinicians with little background in the field of SUDs. The association between social skills and SUDs was first recognized in the literature in the 1970s within the context of alcoholism treatment and relapse prevention, largely drawn from the tenets of social learning theory (e.g., Chaney, O'Leary, & Marlatt, 1978; Monti, Gulliver, & Myers, 1994; O'Leary, O'Leary, & Donovan, 1976). Within the relapse prevention framework, the return to problematic alcohol use, or relapse, may be avoided (or limited) if the individual has the appropriate set of skills to cope more effectively with life stressors and situations that may place the person at risk for relapse (Larimer, Palmer, & Marlatt, 1999; Marlatt & Gordon, 1985). It is asserted that inadequate coping skills decreases one's self-efficacy to cope with high-risk situations, and coupled with positive beliefs about the effects of alcohol (i.e., alcohol outcome expectancies), the individual is vulnerable to relapse. Social skills are considered part of the skill repertoire that will reduce risk for relapse; thus, if one does not have adequate social skills to effectively cope with high-risk situations, the

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person is likely to relapse into SUDs. Social skills training was initially included as a central component of "coping skills" interventions for alcohol-related disorders. Coping skills interventions, including social skills training, have been extended to illicit substances of abuse, with the most research focusing on coping skills interventions for cocaine use disorders (e.g., Carroll, 1998; Monti & O'Leary, 1999). Solid methods for social skills assessment within this population are helpful for determination of treatment needs, monitoring treatment progress, and providing adequate tools for researcher investigating social skills and the continuum of substance use behaviors.

The chapter has been organized into the following sections: (1) Description of SUDs and the classes of substances; (2) A review of the relationship between social skills and SUDs; (3) Considerations in assessing social skills among individuals diagnosed with an SUD; (4) A review of selected measures for use with this specialized population; and (5) Conclusions. As the majority of the published work related to social skills deals with alcohol, much of information reported is based upon studies focusing on alcohol use disorders. However, this chapter covers other substances when information is available.

SUBSTANCE USE DISORDERS

Results of the National Comorbidity Study Replication indicate that nearly 15% of Americans have at least one SUD during their lifetime (Kessler, Berghund, Demler, Jin, & Walters , 2005). SUDs include the diagnoses of *substance abuse* and *substance dependence*. The most recent edition of the *Diagnostic and Statistical Manual of Mental Disorders* [DSM-IV-TR; American Psychiatric Association (APA), 2000] defines substance dependence as three or more psychological and/or physiological symptoms indicating continued maladaptive substance use despite significant substance-related problems. These symptoms include tolerance, withdrawal symptoms, loss of control over use, unsuccessful attempts to terminate use, excessive time spent in using or obtaining the substance, social or occupational activities adversely affected by use, and continued use despite physical or psychological problems (APA, 2000). The substance abuse diagnosis has a less severe symptom presentation in which an individual repeatedly uses substances despite negative consequences, such as failure to fulfill major role obligations, recurrent use in hazardous situations, recurrent substance-related legal problems, or continued use despite problems in social or interpersonal domains (APA, 2000).

Diagnoses also include the specific substance and may include multiple substances that only meet criteria for dependence when grouped together, termed polysubstance dependence. The DSM-IV-TR includes 11 classes of substances including alcohol, amphetamines, caffeine, cannabis, cocaine, hallucinogens, inhalants, nicotine, opioids, phencylidine, and sedatives/hypnotics/anxiolytics (APA, 2000). The specific symptom presentation of the disorder may vary across substances. For the purpose of this chapter, only those commonly abused (e.g., caffeine and nicotine are not reviewed as these are not "abused" substances according to DSM-IV diagnoses) and most related to social functioning will be reviewed. Further, many of these classes have been combined when the substances have similar physiological effects.

Overview of Substances Commonly Abused

Alcohol use disorders are the most common among the SUDs, with alcohol abuse having a 13.2% lifetime prevalence rate and alcohol dependence having a 5.4% lifetime prevalence

rate (Kessler et al., 2005). Recent national estimates indicate that prevalence rates for SUDs other than alcohol-related disorders are lower than that of alcohol use disorders but still are an important public health problem. Lifetime prevalence rates for drug abuse is 7.9% and for drug dependence it is 3.0% (Kessler et al., 2005). In order to provide the clinician and/or researcher with background information regarding the commonly abused substances that are most relevant to social functioning, an overview of alcohol as well as four groupings of substances other than alcohol (i.e., depressants other than alcohol, stimulants, cannabis, and opioids) is provided below.

Alcohol is a central nervous system depressant, and consumption may result in sedation and problems with cognitive and motor functioning. Withdrawal symptoms from discontinuing chronic alcohol use may include autonomic hyperactivity, tremors, insomnia, nausea or vomiting, anxiety, and agitation (APA, 2000; Trevisan, Boutros, Petrakis, & Krystal, 1998). More severe cases of withdrawal may include transient hallucinations (i.e., "delirium tremens") and grand mal seizures. Although these symptoms are rare, medical attention is needed for individuals experiencing severe alcohol withdrawal symptoms, as the risk of seizures and delirium tremens can prove fatal (e.g., Trevisan et al., 1998). Other depressants include sedatives/hypnotics and anxiolytics (e.g., barbiturates and benzodiazepines), that result in similar intoxication effects and withdrawal symptoms as described for alcohol. Lifetime prevalence rates for sedative/hypnotic use disorders are estimated at 1.2% (Anthony, Warner, & Kessler, 1994).

One group of substances, the stimulants, includes substances that result in central nervous system arousal and a "high" generally involving feelings of euphoria, increased energy, and grandiosity. Commonly abused stimulants include cocaine and methamphetamine, with a lifetime prevalence of approximately 2.7% for cocaine dependence and 1.7% for other types of stimulant dependence (i.e., methamphetamine and dextroamphetamine; Anthony et al., 1994). Withdrawal symptoms may include intense and unpleasant feelings of depression (i.e., "crash"), sleep disturbances, and psychomotor disturbances (APA, 2000).

Effects of cannabis ingestion are somewhat variable and include feelings of euphoria, impaired judgment and motor performance, distorted sensory perceptions, and sedation. Lifetime prevalence of cannabis dependence is approximately 4.2% (Anthony et al., 1994). Marijuana, being the typical form of cannabis used, is the most commonly used illicit drug in the United States with past-year prevalence rates for marijuana use disorders of 1.5% (Compton, Grant, Colliver, Glantz, & Stinson, 2004). Although there is not an official withdrawal syndrome for cannabis recognized in the DSM-IV, recent studies indicate that chronic users do experience clinically significant withdrawal symptoms. Budney, Moore, Vandrey, and Hughes (2003) propose a list of common (decreased appetite or weight loss, irritability, anxiety, anger or aggression, restlessness, and sleep difficulty) and less common or equivocal cannabis withdrawal symptoms (depressed mood, stomach/physical pain, chills, shakiness, and sweating) based on a review of 12 studies (seven including baseline symptom comparison).

Opioids, also known as opiates, are a class of psychoactive substances with analgesic and sedative effects. Commonly abused opioids include heroine, morphine, and other prescribed painkillers (e.g., codeine). Prevalence rates for opioids can be difficult to ascertain due to the secretive nature of opioid users; however, heroin dependence is estimated to affect 0.4% of the population and dependence on other opioids affects approximately 0.7% of the population during their lifetime (Anthony et al., 1994). Withdrawal from opioids often includes severe flu-like symptoms (e.g., vomiting, diarrhea, and fever; APA, 2000).

RELATIONS BETWEEN SUBSTANCE USE DISORDERS (SUDs) AND SOCIAL SKILLS

Many individuals with SUDs demonstrate impaired social skills (e.g., Abrams et al., 1991; Donohue, Miller, Van Hasselt, & Hersen, 1999), including increased problems with assertiveness and interpersonal problem solving (Miller & Eisler, 1977; Nixon, Tivis, & Parsons, 1992; Patterson, Parsons, Schaeffer, & Errico, 1988). In addition to basic social skills deficits, individuals with SUDs may have marked deficits in specific skills for handling social situations in which substance use is likely to take place (e.g., Mueser, Noordsy, Drake, & Fox, 2003; Rist & Watzl, 1983; Wells, Catalano, Plotnick, Hawkins, & Brattesani, 1989). However, the nature of the relationship between social skills and SUDs is complex and understudied, particularly in regard to substances other than alcohol. Although the association between social skills and SUDs was originally identified in the literature within the context of treatment and relapse prevention (e.g., Monti & O'Leary, 1999; Marlatt & Gordon, 1985), social skills deficits also have been implicated in the onset and maintenance of substance use. Further, substance use or misuse may promote or maintain social skill deficits. For many individuals, the social skills deficits and SUDs may act in a reciprocal fashion within the larger ecological context, with social skills deficits feeding problem substance use and vice versa.

First of all, impairment in social skills may place individuals at risk for problematic substance use by increasing the likelihood of initiating substance use. Once substance use has been established, low social skills may maintain substance use. Social skills impairment may reduce the individual's ability to refuse alcohol or drugs within social settings, increasing the likelihood of initiating and continuing substance use. Further, those with poor social skills may experience social rejection in many contexts and, if exposed to problem substance users, may initiate and continue use of substances to achieve social acceptance among substance abusers (Mueser et al., 2003). The perceived social acceptance for engaging in substance use may be reinforcing. For adolescents, social skills deficits may be related to pathological forms of drinking rather than simply increased rates of alcohol use. For instance, there is some evidence that *better* general social skills may actually be related to *increased* alcohol use among adolescents due to the perception of drinking as a normative behavior within social settings among this group (e.g., Scheier, Botvin, Diaz, & Griffin, 1999; Segrin, 1993; Segrin, 1996). Adolescents with better social skills may be more involved in many social activities with some activities including alcohol, thus increasing frequency of use, but not necessarily the transition to chronic problem alcohol use. For example, problem-drinking adolescents are less socially skilled than abstainers and nonproblem social drinkers (Hover & Gaffney, 1991; Van Hasselt, Hersen, & Milliones, 1978) and adolescents with high levels of alcohol refusal skills at age 14 (odds ratio = 0.77) and 16 (odds ratio = 0.58) had a lower risk of alcohol dependence or abuse diagnoses at age 21 than those with low skills levels (Guo, Hawkins, Hill, & Abbott, 2001). Social skills have also been linked to later marijuana use (alone or with other substances) among adolescents. Lower assertiveness in eighth grade is related to greater problem drinking and multiple substance use (i.e., alcohol, cigarettes, and marijuana) in the tenth grade, controlling for seventh grade substance use (Scheier, Botvin, & Griffin, 2001). Inadequate social and drug refusal skills have been related to increased likelihood (odds ratio = 4.54) of experimenting with marijuana, but not cocaine/crack or "other drugs," among a sample of predominately African American (50%) and Hispanic (36%) seventh graders (Epstein, Botvin, Diaz, Toth, & Schinke, 1995).

Social skills deficits may serve as a maintaining factor for SUDs by reducing an individual's ability to cope effectively with social situations that may serve as a cue for use and

relapse. Marlatt and Gordon (1980) found that interpersonal situations (e.g., interpersonal conflict or social pressure to use) preceded 39% of relapses among alcohol dependent individuals and 47% of relapses in individuals addicted to heroin. Further, over one-third of the heroin-dependent individuals in the study reported that their relapse involved social pressure to use. In a study examining relapse in the 6 months following residential alcohol treatment, those who relapsed were found to be less assertive and more likely to accept drinks in role-played problem social situations than non-relapsers (Rosenberg, 1983). Similarly, substance-specific social skills (i.e., avoidance of alcohol, avoidance of illegal drugs, and consequential thinking) were associated with length of time abstinence from drugs and alcohol in the 6 months after a residential drug treatment (Wells et al., 1989). More recent experimental research also supports the notion of interpersonal situations as a trigger for alcohol use. For instance, a sample of men diagnosed with an alcohol use disorder reported stronger urges to drink in role-played social situations (both general and specific to drinking) than social drinking male normal controls (Abrams et al., 1991). Thus, impaired social skills in an individual with an SUD could increase vulnerability to substance use in high-risk social situations. Evidence that the inclusion of social skills training within SUD interventions contributes to an improvement in social skills and substance use outcomes (e.g., Carroll, 1998; Monti et al., 1994; Monti & O'Leary, 1999; Project MATCH Research Group, 1998) supports the notion that social skills deficits serve as a risk factor for relapse in addition to being a maintaining factor for individuals with active substance abuse or dependence.

Further, social skills deficiencies may serve as a maintaining factor in SUDs as the individual may experience reduced benefits from interventions focused on an SUD. Many treatment settings for SUDs involve group modalities in which social skills deficits could reduce the ability of the person to fully participate in treatment. Further, problems with social situations could impair participation in 12-step recovery programs, such as Alcoholics Anonymous, which are often associated with the treatment and recovery of individuals with an SUD (e.g., Mäkelä, 1993).

Conversely, SUDs may promote or maintain social skills deficits. For those with an early onset of substance use, the development of appropriate social skills may be disrupted by decreased opportunities to learn appropriate social skills at a developmentally critical time (e.g., O'Leary et al., 1976). Longitudinal studies provide evidence that heavy drug or alcohol use during early adolescent years was related to later deficits in social competence and a slower acquisition of drug refusal skills (Pandina, Labouvie, Johnson, & White, 1990; Scheier et al., 1999). Many individuals with SUDs have social networks consisting mostly of other substance users, and the lack of non-substance users in the social network may limit the person's ability to develop better social skills. Further, negative social effects of intoxication may include the precipitation and intensification of arguments or other socially undesirable behaviors that lead to exclusion from social gatherings (e.g., Donohue et al., 1999). This further limits opportunities to practice healthy social skills.

SUDs may increase risk for social skills deficits through the mediating role of cognitive deficits (e.g., impairment in abstracting and problem solving, learning, memory, visual-spatial functioning, and perceptual-motor skills; Oscar-Berman, Shagrin, Evert, & Epstein, 1997). Cognitive deficits may result from the neurotoxic effects of the substance, traumatic brain injury that occurred while intoxicated, or severe malnutrition (Bates, Bowden, & Barry, 2002; Tarter & Kirisci, 1999). The most conclusive evidence regarding the cognitive deficits has been for alcohol and other depressants, with little or no research focusing on long-term cognitive deficits related to other substances (e.g., Nixon, 1999); however, there is evidence that individuals seeking treatment for polydrug use and stimulant use demonstrate cognitive deficits at 11–15 weeks after last drug use, controlling for cognitive abilities before initiation of substance use (i.e., fourth grade) (Block, Erwin, & Ghoneim, 2002). Cognitive deficits may

reduce the individual's ability to acquire and maintain social skills. For instance, individuals with neuropsychological deficits related to chronic alcohol use have demonstrated impaired performance related to substance refusal skills compared to individuals with an SUD without neuropsychological impairment, such as slower responses and decreased ability to describe effective methods for refusing alcohol (Smith & McCrady, 1991).

Although there are many etiological pathways by which an individual develops co-occurring SUD and social skills deficits, once both are present the individual likely enters a reciprocal cycle in which the substance use fuels social maladjustment, and the social maladjustment fuels substance use (Tarter & Kirisci, 1999). Two longitudinal studies provide evidence that social skills deficits and alcohol or marijuana use may feed off one another. Scheier and colleagues (1999) used latent growth modeling to examine the trajectories of refusal skills efficacy and alcohol use over a 4-year period in a cohort of untreated adolescents. Adolescents with lower levels of refusal skills efficacy in the seventh grade increased rates of alcohol use more swiftly over the 4-year period than those youth who reported higher levels of initial refusal skills efficacy. Rate of alcohol use also was found to affect refusal skill efficacy, as adolescents reporting higher rates of alcohol use in the seventh grade demonstrated a more rapid decline in their refusal skill efficacy over time than those with low levels of initial alcohol use (Scheier et al., 1999). Another longitudinal study indicated that greater increases in marijuana over a 3-year period use among adolescents (ages 12, 15, or 18) were generally related to poorer social competence and that decreases in social competence over the 3 year period were related to greater marijuana use at the end of the 3-year period (Pandina et al., 1990). This pattern was less consistent for alcohol use.

Unfortunately, the research to date has been limited in testing the reciprocal associations between social skills and use of other substances (i.e., stimulants, opioids, and depressants other than alcohol) over time. However, given the varying pharmacological effects, motives for use, availability, and perceived social acceptability across the different types of substances, it would stand to reason that the influence of social skills deficits on SUD onset, maintenance, and relapse, as well as the impact of an SUD on social skills, could differ depending upon the substance. For instance, heroin tends to be used within secretive subgroups (particularly when administered intravenously) and has pharmacological effects that would tend to deter social interaction. On the other hand, alcohol is legal for a large portion of the population, is more frequently consumed within social and public settings, and has some disinhibiting effects that could encourage social interactions. Even within a specific substance class, there may be unique rituals involved in the drug use that could influence the association that the SUD has with social skills. Although heroin and several orally administered prescription pain killers are classified as opiates, the rituals involved in obtaining and using the two types of substances would vary considerably (e.g., Thombs, 2006). Understanding the potential reciprocal relationship among the types of social skills deficits and each substance class (and to a certain degree, specific substances) could be important in understanding the assessment and treatment needs of individuals presenting with an SUD. One potential challenge in conducting such research and an important assessment/treatment concern is that more than half of individuals seeking treatment for one substance use and/or abuse multiple substances, complicating the overall picture of the individual even more so (e.g., Substance Abuse and Mental Health Services Administration (SAMHSA), 2005.

ASSESSMENT CONSIDERATIONS

Given the relationship between impairment in social functioning and substance use, abuse, and dependence, assessment of social skills among individuals with SUDs is

warranted. However, there are features uniquely associated with SUDs that must be considered in the assessment of social skills. Assessment considerations for individuals with SUDs include the relative permanence or stability of the deficits as well as the pervasiveness of the deficits across situations.

Temporary vs. Permanent

First of all, given the variable effects of substance use and the discontinuation of substance use, an adequate social skills assessment must determine whether observed social deficits are temporary and/or permanent in nature. One must consider time since last use, substance used, cognitive deficits, and co-occurring psychological disorders.

An adequate assessment of social skills in an individual with an SUD will require a substance-free period and multiple assessment points. Intoxication, withdrawal, and adaptation to abstinence have a variety of short-term and long-term effects on psychological, cognitive, and psychomotor functioning that could be temporary and therefore potentially misleading in terms of social skills assessment (Clark, 1999). For many substances, withdrawal includes unpleasant symptoms that may influence social functioning. For instance, withdrawal may involve stimulation of the autonomic nervous system associated with anxiety or agitation that could influence one's ability to display adequate social skills. It has been recommended that there be a 4-week abstinence period before determining a diagnosis of disorders comorbid with alcohol use disorders (e.g., APA, 2000; Clark, 1999). The abstinent period for individuals using other substances has not been established, but it is clear that there must be a drug-free period of some sort in order to adequately assess for comorbid disorders. This rule would likely apply to assessment of social skills as well as comorbid conditions. In addition, a medical examination to assess for withdrawal symptoms and other possible effects of substance use is recommended, particularly for individuals with a short substance-free period.

Assessment of sobriety may be conducted by self-report, collateral reports, behavioral observation, and/or using a biological test. Research indicates that self-report information regarding medical and psychological information, including alcohol and drug use, can be trusted under the proper circumstances. The literature indicates that self-report information from alcohol and other drug abusers are generally reliable and accurate when conducted in a confidential setting (i.e., a clinical or research setting with assured confidentiality) while the individual is sober (e.g., Sobell & Sobell, 1990). A biological test, such as urine drug screening, oral fluid tests, blood tests, or alcohol breath tests (e.g., Carroll & Rounsaville, 2001; Goldberger & Jenkins, 1999; Wolff et al., 1999) may be utilized if there are concerns that the individual is intoxicated at the time of the assessment and/or is being dishonest about his or her last use. However, drug metabolites remain in the bloodstream, urine, saliva, and/or breath for varying amounts of time; therefore, depending on the substance(s) and the type of test, testing may need to be performed more frequently in order to be accurate. Additionally, these tests may be expensive and require access to medical staff and resources. Thus, collateral reports and/or or behavioral observations of signs of use (e.g., unsteady gait, pupil dilation) or withdrawal (e.g., tremors) may be more feasible.

An evaluator must consider the possibility of short-term or long-term cognitive deficits that reduce the individual's ability to acquire and maintain social skills as well as to provide accurate self-report information. According to Parsons (1986), 50–80% of alcohol-dependent individuals score in the "impaired" range when recently detoxified; however, some neuropsychological deficits related to chronic alcohol use may improve over time (Goldman, 1986).

Therefore, a neuropsychological evaluation may be necessary, with consideration of time since last use, length and pattern of use, and medical history.

As reviewed elsewhere in this volume, social skills deficits are associated with many psychological disorders. Many of these psychological disorders are also associated with substance abuse, which may exacerbate the social skills deficits. Individuals with comorbid disorders may be more likely to use substances to gain acceptance by peers and to alleviate negative affect (Mueser et al., 2003). Further, the side effects of medications prescribed for a psychological disorder may also affect social functioning (e.g., akinesia with antipsychotics; Mueser et al., 2003). Thus, in the assessment of social skills in individuals with SUDs, one must consider the possible effects of comorbid disorders and current medications.

Global vs. Specific

Evidence suggests that global social skills and social skills specific to substance use situations or substance refusal are independent dimensions (e.g., Monti, Corriveau, & Zwick, 1981; Willis, Baker, & Botvin, 1989). The presence of global social skills and social skills specific to substance related situations may be unrelated in some individuals with SUDs (e.g., Rist & Watzl, 1983; Monti et al., 1981). Some individuals may not appear to have social skills deficits because they are skillful in most situations but still have skill deficits related to substance-specific situations and/or cues (e.g., poor assertiveness skills in resisting pressure to use) that cause significant problems in abstaining from their drug of choice. Therefore, assessment of only global social skills in this population could cause the clinician or researcher to overlook important deficits that need to be addressed. Measures of both general social skills and substance-specific social skills for individuals with SUDs have been included in the next section.

OVERVIEW OF SELECTED MEASURES

The measures of social skills reviewed in this section include those assessing more general or global social skills and those assessing social skills specific to substance use and/or substance refusal. Since these global and substance-specific social skills appear to be distinct domains of important consequence among individuals with SUDs, we have separated the measures by domain for the summaries below.

Global Social Skills

Many global social skills assessments described elsewhere in this volume may be used to assess social skills in individuals with SUDs. However, there are SUD assessments that include an assessment of social functioning that may be particularly useful for social skills assessment in this population. Clinicians or researchers may assess social functioning within a more comprehensive SUD assessment or select sections specific to social functioning as needed. Assessments reviewed include the Addiction Severity Index, Teen Addiction Severity Index, Drug Use Screening Inventory, and Adolescent Drug Abuse Diagnosis. For the most part, these assessments may function as a screening mechanism for potential social skills problems rather than as a comprehensive assessment of social skills. Thus, the review includes a brief description of the psychometric properties of the instruments in general, followed by

the psychometric properties for the aspects of the instrument most relevant to social skills assessment.

Addiction Severity Index-Fifth Edition (ASI)

Original Citation. McLellan, et al. (1992). The fifth edition of Addiction Severity Index. *Journal of Substance Abuse, 9,* 199–213.

The manual for the ASI detailing administration procedures and scoring is available from: A. Thomas McLellan, Ph.D., Building 7, Veterans Administration Medical Center, Philadelphia, PA 19104 or Treatment Research Institute, 600 Public Ledger Building, 150 South Independence Mall West, Philadelphia, PA 19106, USA.

Description. The ASI is a widely used semi-structured, 45–75 min clinical interview (20–25 min administration at follow-up) that assesses current (i.e., last 30 days) and lifetime problems in family and social relationships as well as six other areas (i.e., medical condition, employment, drug use, alcohol use, illegal activity, and psychiatric conditions) related to substance use or dependence in adults (McLellan et al., 1992). The Family/Social scale assesses marital status, satisfaction with relationship, living situation, substance use status of others in the home, leisure time and satisfaction level, support systems (close friends, familial relationships), and serious conflicts with others. The most recent version (ASI-5) Family/Social scale includes items related to family history and past abuse that are not directly relevant to assessment of social functioning (McLellan et al., 1992).

Three types of scores are obtained for each scale: (1) patient ratings, (2) interviewer severity ratings, and (3) composite scores. The patient rating scale consists of ratings of how bothered the patient is by the problem and how important treatment is for the problem area (0 = *not at all;* 4 = *extremely*). Interviewer severity ratings follow a 0–9 scale (0–1 = *no real problem*; 8–9 = *extreme problem*) and are intended to also reflect need for treatment. Composite scores are based on a mathematical estimate of the patient's status in the different problem areas ranging from 0.0 (*no problem*) to 1.0 (*extreme problem*). The ASI-6 is currently under development by the authors of previous ASI versions (McLellan, Cacciola, Alterman, Rikoon, & Carise, 2006).

Psychometric Properties. The validity and reliability of the ASI as a whole has been well established for use with adults in several formats and settings (e.g., Kosten, Rounsaville, & Kleber, 1983; McLellan et al., 1985; McLellan et al., 2006); however, it has been noted that the validity and reliability in special populations such as the homeless or individuals with severe mental illness may be weaker (e.g., Mäkelä, 2004).

In a nationally representative sample of 8,400 treatment-seeking individuals included in the Drug Evaluation Network System (66% male; M_{age} = 34; 60% White, 23% Black/African American), the mean Family/Social scale composite score was .16 (McLellan et al., 2006). In addition, mean scores were identified specifically for men (*n* = 5,539; *M* = .13), women (*n* = 2,890; *M* = .22), individuals with alcohol use disorders (*n* = 1,935; *M* = .10), individuals with opiate use disorders (*n* = 611; *M* = .15), individuals with multiple SUDs (*n* = 2,129; *M* = .20), inpatients (*n* = 3,133; *M* = .15), and outpatients (*n* = 3,885; *M* = .13). In Mäkelä's (2004) review of ASI psychometric studies (varying in ASI version used), internal consistencies for the Family/Social composite scores in 12 studies ranged from poor (primarily with special populations) to good (α = 0.52–0.78). The interrater reliability of the Family/Social severity ratings was shown to be excellent (Spearman-Brown reliability coefficient = .94) among 30 patients from three treatment centers (McLellan et al., 1985). Family/Social domain severity ratings moderately correlated (*r* = .46) with a social adjustment scale

among 204 treatment-seeking opiate users (Kosten et al., 1983) and had weaker correlations with social adjustment scale subscales among 58 alcohol-dependent (family: $r = .39$; social: $r = .21$) and 123 drug-dependent individuals (family: $r = .25$; social: $r = .19$) (McLellan et al., 1985).

Teen Addiction Severity Index (T-ASI)

Original Citation. Kaminer, Y., Buckstein, O., & Tarter, R.E. (1991). The Teen-Addiction Severity Index: Rationale and reliability. *The International Journal of Addictions, 26*, 219–226.

Additional information is available from: Yifrah Kaminer, M.D, Western Psychiatric Institute, 263 Farmington Ave., University of Connecticut Health Center Farmington, CT 06030–2103, USA.

Description. Analogous to the adult version, the 126-item T-ASI is a semi-structured interview intended to assess the severity of problems in multiple domains specifically for adolescents (aged 12 and older) (Kaminer et al., 1991). The T-ASI examines the severity of the problems in peer and familial relationships in addition to five other domains (i.e., chemical use, school status, employment-support status, legal status, and psychiatric status) to provide a problem profile for each adolescent. For each scale, patient ratings are obtained regarding how bothered the adolescent is by the problem and how important treatment is for the problem area (0 = *not at all;* 4 = *extremely/always*). Interviewer severity ratings are obtained on a 0 (*no real problem, treatment not indicated*) to 4 (*extreme problem, treatment absolutely necessary*) scale. Brodey et al. (2005) developed T-ASI composite ratings similar to that of the ASI. The T-ASI also is available in internet and automated telephone self-report formats (see Brodey et al., 2005).

Psychometric Properties. Based on 25 consecutive admissions to an inpatient adolescent substance abuse and psychiatric treatment unit (ages 13–18), the scales demonstrate adequate interrater reliability ($r = .78$) (Kaminer et al., 1991). In another sample of 25 inpatients (ages 12–17; 40% female; 92% Caucasian; Kaminer, Wagner, Plummer, & Seifer, 1993), the T-ASI substance use scale was significantly correlated with ratings of alcohol ($r = .76$) and substance abuse ($r = .88$) scales from an established diagnostic interview schedule, and substance use scale scores were significantly higher for substance abusing adolescents ($n = 9$; $M = 2.22$) than for those in the psychiatric diagnosis only group ($n = 16$; $M = 0.13$), indicating good convergent and discriminant validity.

The psychometric properties of the T-ASI scales relevant to social skills are questionable. The psychometric properties of the three T-ASI formats (i.e., clinician administered, internet, and automated telephone) were examined in a sample of 95 inpatients at a residential youth chemical dependency facility (ages 12–19; 49% female; 80% Caucasian; Brodey et al., 2005). For the clinician administered and internet self-report formats, the mean composite score was 0.32 for the Peer domain and 0.41 for the Family domain. Composite scores for the automated telephone self-report version were significantly higher for the Peer domain ($M = 0.37$) and significantly lower for the Family domain ($M = 0.39$) compared to the two other formats. Among the 95 adolescent inpatients in the sample, internal consistency for the Peer domain composite score was not adequate (clinician administered $\alpha = .28$, internet $\alpha = .34$, and automated telephone $\alpha = .19$). Further, internal consistency was poor to fair for the Family domain composite score across all formats (clinician administered $\alpha = .64$, internet $\alpha = .62$, and automated telephone $\alpha = .59$) (Brodey et al., 2005). Although interrater reliability was found to be adequate for the Peer scale ($r = .79$) in the sample used for the initial investigation of T-ASI psychometric properties, interrater reliability for the Family scale was not adequate ($r = .32$; Kaminer et al., 1991).

In regard to convergent validity, Brodey et al. (2005) found that correlations between Peer domain composite scores and the social isolation scale of the Personal Experience Inventory (PEI; Winters & Henly, 1989) indicated poor convergent validity for the three T-ASI formats (*r*s = .02–.16). Correlations between the Family domain score and the PEI family pathology scale (*r*s = .29–43), PEI family estrangement scale (*r*s = .49–.57), and Problem-Oriented Screening Instrument for Teenagers (POSIT; Rahdert, 1991) family relationships scale (*r*s = .22–.35) provide some support for convergent validity within the Family domain across the three formats.

Drug Use Screening Inventory (DUSI)

Original Citation. Tarter, R. (1990). Evaluation and treatment of adolescent substance abuse: A decision tree method. *American Journal of Drug and Alcohol Abuse, 16*, 1–46.

Manual available from: Ralph E. Tarter, Ph.D., Department of Psychiatry, University of Pittsburgh School of Medicine, 3811 O'Hara Street, Pittsburgh, PA 15213, USA.

Description. The DUSI (149-item) and more recently developed DUSI-R (159-item) are self-report questionnaires specifically designed to quantify and rank the indicators of substance abuse severity (alcohol and drug) in conjunction with the physical and mental health status and psychosocial adjustment (Tarter & Hegedus, 1991). The DUSI and DUSI-R provide information along ten domains, with three relevant to social functioning: Behavior Patterns (domain II), Social Competence (domain V), and Peer Relationships (domain IX) (Tarter & Hegedus, 1991). The Behavior Patterns domain (20 items) assesses anger demonstrations, behavioral maladjustment, acting out, social isolation, and self-discipline. Social Competence (14 items) assesses the skills related with social interactions in daily life, with most items focusing on assertiveness and refusal skills. Peer Relationships (14-item) assesses peer relationships, such as gang behavior, antisocial propensity, peer involvement with alcohol and other drugs, and the size of the client's social network. The DUSI-R includes ten additional items to form a lie scale. The DUSI and DUSI-R can be administered in approximately 20 min with several different versions for adults and adolescents (10–16 years) varying in length of time that the respondent is asked to remember (i.e., 1 week versus 1 year). The DUSI can be administered by paper and pencil or in a computerized format. All versions can be self-administered unless the respondent reads below a 5th grade level, in which case the instrument should be read to the individual. The ten domains are the same in both adult and adolescent versions; however, the School Adjustment domain is not relevant for many adults (i.e., unless the individual is attending school; Tarter & Kirisci, 1997).

The DUSI and DUSI-R yield two profiles: (1) the absolute problem density and (2) the relative problem density (Tarter & Hegedus, 1991). The absolute problem density score signifies severity of disturbance in each domain by calculating the percentage of items endorsed within the domain (ranging from 0–100%). The relative problem density score provides a rank order of severity in the 10 domains. Additionally, the instrument yields an overall problem index score ranging from 0–100% which reflects the general severity of maladjustment and may be used to determine the most suitable treatment facility (i.e., inpatient vs. outpatient). However, there are no arbitrary threshold scores to determine the suitability of the treatment; therefore, the evaluator must use clinical judgment (Tarter & Hegedus, 1991).

The DUSI has also been translated and validated in samples of adolescents in several countries (DeMicheli & Formigoni, 2002a; 2000b; Díaz Negrete, González Sánchez, & García Aurrecoechea, 2006; Moss, Bonicatto, Kirisci, Girardelli, & Murrele, 1998; Aytaclar, Erkiran, Kirisci, & Tarter, 2003). Siewert, Stallings, and Hewitt (2004) developed a version of the DUSI for use in research settings with community samples including six subscales

(i.e., conduct problems, hyperactivity, low self-esteem, neuroticism, social withdrawal, and school problems). For the purpose of social skills assessment, the two most relevant factors are the low self-esteem (composed of items that appear to be related to assertiveness) and social withdrawal.

Psychometric Properties: Adults. Tarter and Kirisci (1997) examined the psychometric properties of the adult version of the DUSI with alcohol/drug users ($n = 119$; $M_{age} = 40.9$) and normal controls ($n = 119$; $M_{age} = 41.18$) in a predominately Euro-American sample ($n = 104$ in each group) that was nearly balanced across gender. Internal reliability was acceptable, with an average reliability coefficient across all ten domains of 0.76 for males and 0.72 for females. The percentage of cases correctly classified as either substance abusers or normal using all DUSI domains was 72%. Using exploratory factor analyses and confirmatory factor analyses, factorial validity was supported for the ten domains, with the exception of School Adjustment Domain in adults (Tarter & Kirisci, 1997).

In the same sample of alcohol/drug users and normal controls, Tarter and Kirisci (1997) found that the Behavior Pattern, Social Competence, and Peer Relationship domains mean inter-item correlations ranged from .18 to .24 for males and .17 to .19 for females. Supporting the construct validity of the DUSI scales related to social skills, the Behavior Pattern domain severity score was correlated with the social closeness ($r = -.29$, $p = .002$) and negative affect ($r = .56$, $p < .0001$), the Peer Relationships score was correlated with social closeness ($r = -.21$, $p < .03$) and self-monitoring style in social interactions ($r = .28$, $p < .003$), and the Social Competence domain was correlated with social closeness ($r = .38$, $p < .001$) (Tarter & Kirisci, 1997).

To develop a version of the DUSI intended for research in nonclinical samples, Siewert et al. (2004) performed an exploratory principal components analysis with four of the original DUSI domains (i.e., Behavior Patterns, Psychiatric Disorder, Social Competence, and the School/Performance Adjustment) based on Colorado Adolescent Twin Study data ($N = 1736$; $M_{age} = 15.0$; 755 females, 87.7% Caucasian). The factor analysis resulted in four factors (i.e., conduct problems/hyperactivity, low self-esteem, social withdrawal, and school problems) that were further divided into six subscales by the researchers to provide better interpretability. Using the six subscales, there were a greater number of significant correlations with indices of substance use and abuse and lower intercorrelations among the subscales than with the original 10 DUSI domains. Although this modified version may be potentially useful for research conducted in community samples, use of this factor structure is cautioned as the authors did not perform confirmatory factor analyses to support the factor structure.

Psychometric Properties: Adolescent Version. Among adolescents (ages 12–18), the DUSI has demonstrated excellent test-retest reliability (.95 for males; .88 for females) and correctly classified 80–97% of normal control adolescents ($n = 278$) and 68–86% of adolescents who qualified for a DSM-III-R (APA, 1987) diagnosis of a SUD ($n = 259$) (Kirisci, Mezzich, & Tarter, 1995). The DUSI has also demonstrated predictive validity in that DUSI scores obtained from a sample of 354 males (77% Caucasian) at age 12–14 and age 16 predicted DUSI scores and the presence/absence of an SUD at age 19 (Tarter & Kirisci, 2001).

For scales relevant to social skills, Tarter and Kirisci (2001) reported mean scores at ages 12–14 and 16 for the Behavior Pattern domain (age 12–14 $M = 1.82$; age 16 $M = 6.17$), the Social Competence domain (age 12–14 $M = 16.02$; age 16 $M = 12.27$), and the Peer Relation domain (age 12–14 $M = 7.49$; age 16 $M = 27.02$). DUSI Behavioral Pattern and Peer Relation domain scores at age 12–14 predicted SUD status at age 19, but the Social Competence domain score did not. However, all three domains at age 16 were predictors of SUDs at age 19 (Tarter & Kirisci, 2001). In a sample of 25 adolescent in a substance abuse treatment facility (16 female; 92% Caucasian; $M_{age} = 15.6$), correlations between the DUSI

absolute problem density scores and number of DSM-III-R substance abuse symptoms were significant for Social Competence ($r = .52$, $p < .005$) and Peer Relations ($r = .37$, $p < .05$) but not Behavior Patterns ($r = .31$, $p = ns$) (Tarter, Laird, Bukstein, & Kaminer, 1992).

Adolescent Drug Abuse Diagnosis (ADAD)

Original Citation. Friedman, A. S., & Utada, A. (1989). A method for diagnosing and planning the treatment of adolescent drug abusers [The Adolescent Drug Abuse Diagnosis (ADAD) instrument] *Journal of Drug Education, 19*, 285–312.

Manual available from Alfred S. Friedman, Ph.D. and Arlene Terras (Utada), M.Ed., Belmont Center for Comprehensive Treatment, 4,081 Ford Road, Philadelphia, PA 19131, USA.

Description. The ADAD is a semi-structured interview modeled after the ASI to assess life experiences, attitudes, affect states, and past and present behaviors that may influence or interact with the adolescent's substance abuse (Friedman & Utada, 1989). The ADAD includes 150 items that comprise nine separate problem areas for adolescents (i.e., medical, school, employment, social, family, psychological, legal, alcohol, and drugs) as well as basic sociodemographic information. Relevant to this chapter, the social problem section evaluates two different types of social problem factors: (1) social behaviors that are associated with the "drug use" or "deviant" lifestyle and (2) problems related to developing and maintaining satisfying social relationships. Also relevant to social skills, the family scale assesses conflicts, roles, behaviors, and tasks of the adolescent in the family.

Three ratings are provided for each problem area: (1) the Client Rating Scale, (2) severity ratings, and (3) composite scores (Friedman & Utada, 1989). The Client Rating Scale is a self-report rating of how troubled the client has been by the problems in that particular domain, as well as the client's desire for help or treatment in regard to the problems (0 = *None/Not at all*; 3 = *A lot*). Second, the interviewer assigns severity ratings on a 10-point scale (i.e., 0–1 = *no real problem*; 8–9 = *extreme problem, treatment absolutely necessary*) that indicate need for treatment in each of the nine areas. Composite scores are mathematically derived using items assessing the self-reported overt behavior and performance, with items receiving different weights depending on the adolescent's circumstances (Bolognini, et al., 2001). Friedman and Utada (1989) recommend that the composite scores be used to assess change, as interviewer ratings may not accurately reflect the degree of change over time.

The ADAD is also available in a French version (Bolognini et al., 2000, 2001).

Psychometric Properties. In a sample of 1,042 and adolescents (27% female; $M_{age} = 15.6$; 53% Caucasian, 25% Black, 20% Hispanic) from three different types of treatment settings (683 in outpatient programs, 202 in hospital programs, and 157 in non-hospital residential programs), intercorrelations between the global severity ratings and composite problem scores with the domain scores ranged from $r = .30$ (social problem area) to $r = .67$ (psychological problem area; Friedman & Utada, 1989). In a subsample of 18 adolescents, interrater reliability (.85–.97) and test-retest reliability (.71–.92) were found to be adequate to excellent for all the scales. Results support the convergent and discriminant validity of all of the ADAD scales except for the social problem area (discussed below; Friedman & Utada, 1989).

Normative data were obtained from the sample of 1,042 adolescents for the three types of treatment settings (Friedman & Utada, 1989). For the social problem area, mean composite scores were 8.1 for outpatient settings, 12.5 for residential settings, and 12.7 for inpatient settings. For the family problem area, mean composite scores were 12.0 for outpatient settings, 16.9 for residential settings, and 19.8 for inpatient settings. In the same sample, the

social ($\alpha = .66$) and family ($\alpha = .85$) problem severity ratings demonstrated fair to good internal consistency. Using a 3–6 day period between administrations ($N = 18$), Friedman and Utada (1989) found that test-retest reliability was good for the social problems severity rating ($r = .84$) and composite score ($r > .92$). When using two raters for each interview ($N = 18$), interrater reliability for the social ($r = .85$) and family ($r = .90$) problem areas were good. Additionally, interrater reliability for 26 raters rating the first two research participants yielded 81% agreement for the social and 85% agreement for the family problems severity rating.

To test convergent and discriminant validity, Friedman and Utada (1989) examined two subsamples of inpatient, outpatient, and residential clients at treatment entry [Sample 1 (validation sample): $N = 175$; Sample 2 (cross-validation sample): $N = 144$]. The validity of the ADAD social problems scale is questionable, as the correlation between ADAD social problems severity ratings and a related measure of peer-social relations was slightly lower than the correlations between peer-social relations measure and ADAD alcohol severity ratings (.27 versus .29 respectively) and the correlation between the PMES peer-social relations and the ADAD drug problem area severity ratings (.35 versus .42) (Friedman & Utada, 1989). Family problem scale severity ratings ($r = .44$) and composite scores ($r = .43$) were correlated with a related measure of family relationships but generally were not correlated with alcohol and drug scale scores ($rs = .08–.31$).

Conclusions

Global social skills assessments can be helpful in framing alcohol and drug problems within the overall clinical picture of the individual. Overall, the DUSI appears to be the strongest as far as having evidence of validity and reliability as a whole, validity and reliability with regard to aspects relevant to social skills assessment, and applicability for adults and adolescents. Since the ASI is widely used, and its use is even mandated at many public and private agencies, there may be advantages to using a measure that is recognized and understood by clinicians and researchers. Both the ASI and DUSI have been examined in relatively diverse samples, providing evidence of their generalizability. The T-ASI and ADAD, both modeled after the ASI, might provide a good instrument for assessing the overall picture; however, both measures could use further work in establishing overall psychometric properties and to address the questionable psychometric properties for the scales specific to social skills. Given the current research findings available, the T-ASI and ADAD are not optimal measures to use if a clinician wishes to screen for problems with an adolescent's social functioning; the DUSI would instead be recommended as a screening tool. While global assessments may be helpful to elucidate the areas that should be considered in treatment, they do not provide enough information to fully understand the social functioning of the individual.

SOCIAL SKILLS SPECIFIC TO SUBSTANCE USE/MAINTAINING ABSTINENCE

There are several instruments that have been developed to assess social skills specific to situations that may lead to substance use and/or relapse. These assessments often involve role-plays or responses to scenario descriptions consisting of social interactions that are likely to lead to substance use. Measures reviewed are the Situation Competency Test,

Alcohol Specific Role Play Test, Cocaine-Related Assessment of Coping Skills, Cocaine Risk Response Test, Problem Situation Inventory, and the Adolescent Relapse Coping Questionnaire.

Situation Competency Test (SCT)

Original Citation. Chaney, E. F., O'Leary, M. R., & Marlatt, G. A. (1978). Skill training with alcoholics. *Journal of Consulting and Clinical Psychology, 46*, 1092–1104.

Manual available from Edmund F. Chaney, Ph.D., Psychology Service VA Med Center (116-B) VA Puget Sound Health Care System, Box 358280, 1660 S. Columbian Way Seattle, WA 98108, USA. In addition, instructions and the 16 scenario scripts can be obtained in Chaney (1989). Social skills training. In R. K. Hester & W. R. Miller (Eds.), *Handbook of alcoholism treatment approaches: Effective alternatives* (pp. 206–221). Needham Heights, MA: Allyn and Bacon.

Description. The SCT is a semi-structured interview that assesses the ability to interact in situations that may lead to alcohol use. There are 16 scenarios that fit into the following four broad categories of situations deemed to be difficult and challenging to recovering alcoholics: (1) frustration and anger (i.e., obstruction of a goal-directed activity and/or hostility toward some person or event); (2) interpersonal temptation (i.e., overt or covert pressure by other individuals to drink); (3) negative emotional state (i.e., feelings of loneliness, boredom, depression, malaise, anxiety that may affect the desire to drink); and (4) intrapersonal temptation (i.e., a nonspecific personal desire or compulsion to drink) (Chaney et al., 1978). Of the 16 scenarios, eight are explicitly drinking related, while the remaining eight are not directly drinking related. The situation descriptors may be administered orally, via audiotape, or in a written format. At the end of the each of the situation descriptors, the participant is instructed to imagine him/herself in the given situation. In the verbal or audiotaped formats, the individual is instructed to say the words and/or perform the actions that he or she would use to respond to the situation (i.e., role-play response). In the written format, the individual is instructed to provide a written description of the words and/or actions that he or she would use to respond to the situation. The participants' responses are rated on four aspects: response latency (in seconds from end of recording to response for verbal and audiotaped versions only), response duration (number of words), compliance of response, and specificity of response. Rosenberg (1983) developed the fifth scoring dimension of intention to drink (i.e., explicit statement of intention to drink or not to drink).

Psychometric Properties. Using the audiotaped version of the SCT, studies have found adequate interrater reliability for response latency ($r = .67$), response duration ($r = .92$), compliance ($r = .85$; 93% agreement), specificity ($r = .82$; 89% agreement), and intention to drink (94% agreement) dimensions in a sample of 33 male inpatients diagnosed with alcoholism ($M_{age} = 30.97$; 75% Caucasian; Smith & McCrady, 1991) and two samples of male veterans in residential alcohol treatment ($N = 20$; Chaney et al. 1978; $N = 50$; 94% Caucasian; Rosenberg, 1983). Using both written and verbal formats, Steiner and Rosenberg (1990) found adequate interrater reliability for duration (90–98% agreement), specificity (70–78% agreement), intention to drink (86–87%), and compliance (82–88%) in a sample of individuals admitted to a residential alcohol treatment program ($N = 33$, 69% male, $M_{age} = 35$) and a sample of males admitted to a halfway house for alcohol abusers ($N = 15$; $M_{age} = 29$).

The SCT latency ratings have shown evidence of predictive validity in that the latency ratings obtained from the SCT (audiotaped) at the end of residential alcohol treatment were associated with relapse one year later (as assessed by days drunk, days abstinent, drinking quantity, and length of drinking period) among 39 male veterans (Chaney et al., 1978).

Further, SCT latency ratings at the end of treatment were comparable or better than the pertinent demographic variables and drinking history measures in predicting relapse, accounting for 26–53% of the variance in the drinking outcome variables at the 1-year follow-up (e.g., Chaney et al., 1978).

Steiner and Rosenberg (1990) evaluated the comparability of audiotaped and written versions of the SCT in two studies. When administering 8 of the 16 SCT situations in written format and the remaining 8 in audiotaped format for each of the 33 alcohol abusers in a residential treatment program, significant correlations ($ps < .05$) were found between the two versions for duration ($r = .71$) and intention to drink ($r = .36$). In the second study, Steiner and Rosenberg (1990) compared the scores of all 16 SCT situations for the written and audiotaped versions of the SCT separately at two time points (at least 1 week apart) among 15 alcohol abusers in a halfway house. The only significant correlation was for the compliance dimension ($r = .64$). In both studies, the responses were significantly shorter for the written version than the audiotaped version (residential treatment sample: 4–5 words, $p < .01$; halfway house sample: 11 words, $p < .05$), but there were no differences in other dimensions of the SCT across type of administration. Thus, the written version should be used with caution.

Alcohol Specific Role Play Test (ASRPT)

Original Citation. Monti, P. M., Rohsenow, D. J., Abrams, D. B., Zwick, W. R., Binkoff, J. A., Munroe, S. M., et al. (1993). Development of a behavior analytically derived alcohol-specific role-play assessment instrument. *Journal of Studies on Alcohol, 54*, 710–721.

The manual that accompanies this instrument is available from Peter M. Monti, Ph.D., Center for Alcohol and Addiction Studies, Brown University, Box G-BH, Providence, RI 02912, USA.

Description. The ASRPT includes role-played scenarios intended to assess reactions to high-risk situations in individuals with alcohol use disorders (Monti et al., 1993). The ASRPT includes 10 categories of role-play scenes (5 interpersonal; 5 intrapersonal) developed based on a behavior analytic method to identify the most relevant high-risk situations for alcoholic relapse. Each role-play includes a vignette followed by instructions to respond to the situation as if actually in the situation and trying not to consume alcohol. The responses are videotaped and rated in several domains, including social skill (for interpersonal scenes), coping skill (for intrapersonal scenes), and anxiety in the situation. Operational definitions and coding instructions are available from the behavioral rating manual. In addition, self-report ratings may be obtained regarding skill level, urge to drink, the difficulty of the situation in real life, and anxiety or nervousness (Monti et al., 1993).

Psychometric Properties. Monti and colleagues (1993) validated the ASRPT in three samples: (1) men in an inpatient alcohol dependence treatment program ($N = 31$); (2) men in the same inpatient treatment program who were also part of a larger treatment outcome study ($N = 73$); and (3) alcoholic male and female inpatients from a university hospital ($N = 111$; 75 men). No gender differences were found in ASRPT scores. Interrater reliabilities across scenarios were high for the three samples, with Cronbach's alpha ranging from .87 to .96 (median $\alpha = .93$). Reliability for anxiety and skill behavioral ratings across the ten scenes ranged from $\alpha = .63$ to $\alpha = .86$ (median $\alpha = .80$). The self-report ratings across all 10 scenes were high for each rating dimension ranging from $\alpha = .85$ to .92 (median $\alpha = .88$). An examination of gender and ratings for the third sample indicated that the reliability coefficients were generally similar, with the exception of higher alphas for behavioral ratings of social skill across scenarios for women ($\alpha = .80$) than men ($\alpha = .49$).

The ASRPT appears to have adequate construct validity. For instance, the ASRPT scores were significantly correlated with scores on the Simulated Social Interaction Test (SSIT; Curran, 1982), an assessment of general social skills that has established psychometric properties (Monti et al., 1993). Correlations for behavioral ratings on the four role-play social interactions in the SSIT with the ASRPT ranged from .24 to .78, while correlations for SSIT and ASRPT self-report ratings ranged from .30 to .79. ASRPT anxiety scores were positively correlated with both behavioral ratings of anxiety ($r = .24$, $p < .0001$) and self-reported state anxiety ($r = .47$, $p < .001$) (Monti et al., 1993). In addition, the ASRPT has evidence of face and ecological validity among male inpatient alcoholics (Monti et al., 1993). On the 11-point rating scale (from *not at all* to *very*), mean realism (pretest: $M = 8.4$; posttest: $M = 7.1$) and seriousness of the participants' involvement (pretest: $M = 8.0$; posttest: $M = 7.3$) ratings were high. Participants reported that similar situations occur in vivo at some regularity (pretest: $M = 5.1$; posttest: $M = 4.0$).

The Cocaine-Related Assessment of Coping Skills (CRACS)

Original Citation. Monti, P. M., & O'Leary, T. A. (1999). Coping and social skills training for alcohol and cocaine dependence. *Psychiatric Clinics of North America, 22*, 447–470.

Description. The CRACS, modified from the eight-situation Cocaine Specific Skills Test (CSST; Monti, Rohsenow, Michalec, Martin, & Abrams, 1997), was developed to assess degree of skill, urge to use, and self-efficacy in situations where individuals may be more likely to use cocaine (Monti & O'Leary, 1999). The CRACS includes 11 high-risk scenarios that were derived from cocaine users that participated in other treatment outcome studies (Michalec et al., 1992): a pleasant social event, money as a cue, feeling tired, alcohol consumption, having a bad day (negative affect), explicit drug cues with no direct social pressure to use, explicit drug cues with direct social pressure to use, boredom, interpersonal conflict, testing personal control, and the urge to use without explicit cues (Monti & O' Leary, 1999; Rohsenow et al., 2004). Individuals are presented with audiotapes presenting the 11 scenarios followed by four questions for each situation. First, the person is asked to report what they would do to avoid using drugs in the situation. Next, the individual is asked to provide a rating of confidence that they would actually engage in the reported response in the situation (1 = *not at all sure*; 7 = *completely sure*) and a rating of how well the response would work in helping to stay sober (1 = *not work at all*; 7 = *work extremely well*). Finally, a rating of how strong the urge to use cocaine would be (i.e., if not in a treatment setting) in the situation is obtained on a scale from 1 (n*o urge at all*) to 7 (*very strong urge*).

Psychometric Properties. Although the CRACS was originally intended to measure degree of skill in high-risk situations for cocaine use, the authors report that the skills ratings did not show adequate reliability, and this rating should not be used (D. J. Rohsenow, personal communication, November 10, 2006). However, the CRACS urge to use cocaine and self-efficacy ratings may be used. Rohsenow and colleagues (2004) found excellent reliability across the 11 situations for urge to use cocaine ($\alpha = .90$) and for self-efficacy ($\alpha = .88$) among 149 patients (69% male; $M_{age} = 34.2$; 88% Caucasian; 11% Black) in a partial hospital substance abuse treatment program. In addition, urge to use cocaine in the CRACS situations were positively correlated with the amount spent on cocaine at pretreatment but unrelated to demographic variables (Rohsenow, Martin, Eaton, & Monti, 2006). Further, there is evidence of predictive validity for both urge to use and self-efficacy in that these ratings were associated with cocaine use-related variables three months later (i.e., for urge to use: amount spent

on cocaine; Rohsenow et al., 2006; for self-efficacy: cocaine use quantity and frequency; Dolan, Rohsenow, & Martin, 2006).

Cocaine Risk Response Test (CRRT)

Original Citation. Carroll, K. M., Nich, C., Frankforter, T. L., & Bisighini, R. M. (1999). Do patients change in the ways we intend? Assessing acquisition of coping skills among cocaine-dependent patients. *Psychological Assessment, 11*, 77–85.

Description. The CRRT was adapted from the SCT (Chaney et al., 1978) for use with cocaine abusers (Carroll et al., 1999). Situations identified by a sample of cocaine abusers ($N = 21$) as at least "moderately difficult" were chosen from a pool of 20 situations commonly associated with relapse to cocaine use. The CRRT includes five audiotaped scenarios in which the participant is instructed to imagine themselves in the situation and indicate how they would respond in the situation if it were occurring at the moment:(1) Experiencing cravings when receiving paycheck after a "difficult week at work"; (2) Being at a party with friends in which there is alcohol and cocaine;(3) Feeling depressed;(4) Feeling like celebrating; and (5) Feeling bored (Carroll et al., 1999). Audiotaped responses to each of the five situations are scored on six variables: (1) latency (number of seconds until initiation of response); (2) total number of coping plans; (3) quality of best coping response (1 = *poor or no response, drug use likely*; 7 = *excellent response, drug use very unlikely*); (4) quality of overall response (1 = *poor or no response, drug use likely*; 7 = *excellent response, drug use very unlikely*); (5) specificity of response to the particular situation (yes/no); and (6) type of coping response (i.e., 13 response types that fall into categories intended to target treatment specific coping skills, including poor response, drug-use response, CBT-type response, clinical management-type response, and 12-step facilitation-type response).

Psychometric Properties. The psychometric properties of the CRRT were examined by Carroll and colleagues (1999) in two samples of 100 participants in randomized clinical trials for cocaine dependence. Results based on 30 audiotapes indicated good interrater reliability for latency (ICCs = .73–.89), total number of plans (ICCs = .82–.83), quality of best response (ICCs = .71–.79), quality of overall response (ICCs = .72–.91), and type of coping response (κ = .70–.82). Support for interrater reliability regarding specificity was mixed (κ = .51–.78). Internal consistency was good for all continuous variables (.79–.96). For participants completing the CRRT at two assessment points (Sample 1: $N = 39$, 28% female, $M_{age} = 29.4$, 64% Caucasian, 36% African American; Sample 2: $N = 45$, 24% female, $M_{age} = 30.9$, 40% Caucasian, 53% African American), both samples demonstrated improvement in all ratings from pretreatment to posttreatment. The predictive validity of the CRRT was lacking in that few associations were found for CRRT ratings and later cocaine use.

Problem Situation Inventory (PSI)

Original Citation. Hawkins, J. D., Catalano, R. F., and Wells, E. A. (1986). Measuring effects of a skills training intervention for drug abusers. *Journal of Consulting and Clinical Psychology, 54*, 661–664.

Description. The PSI is intended to measure resistance skills associated with tempting relapse situations that substance abusing adults are likely to encounter after leaving a treatment center (Jenson, Wells, Plotnick, Hawkins, & Catalano, 1993). The PSI is an audiotaped role-play test developed from anecdotal narratives of 54 clients in the reentry phase (recounted the first 2–5 days after treatment) and 43 clients in the posttreatment phase

(recounted the first 3 weeks after treatment). The PSI has five subscales: (1) skills to avoid drug use; (2) skills to avoid alcohol use; (3) consequential thinking skills; (4) relapse coping skills; and (5) conventional social, problem-solving and stress-coping skills (Hawkins et al., 1986). The PSI scoring includes 21 possible response components (e.g., "provides a reason"); however, only those components that are applicable to the situation are scored (based on a panel of expert judges; Hawkins et al., 1986). There is also a global score (0 = *least evidence of skill* to 10 = *most evidence of skill*) that is assigned to the situation based on the number of components present in the situation. Bonus points (e.g., avoids drug oriented setting, changes topic from drugs to a safe topic) and penalty points (e.g., aggressive or passive responses) can be awarded.

A related adolescent version, the Adolescent Problem Situation Inventory (APSI; Hawkins, Jenson, Catalano, & Wells, 1991), was derived from the PSI (Hawkins et al., 1986), Freedman Adolescent Problem Inventory (Freedman, Donahoe, Rosenthal, Schlundt, & McFall, 1978), and the Wells Adolescent Alcohol and Drug Problem Inventory (Wells, 1984). The APSI is an audiotaped role-play test and includes drug and alcohol avoidance skills, social and problem-solving skills, and self-control skills subscales.

Psychometric Properties. The original PSI validation sample included 130 participants (82% male; M_{age} = 27; 75% Caucasian) in a therapeutic community treatment setting randomly assigned to a social skills training treatment group (i.e., Project Skills; n = 65) or a control group (n = 53) (Hawkins et al., 1986). Reliability of the ratings system was excellent, with 91.7% intrarater agreement on the global scores and 91.1% interrater agreement. The internal consistency for the full scale was good to excellent (α = .85 at pretest; α = .92 at posttest), with subscale alphas ranging from .63 to .78 at pretest and .69 to .76 at posttest. The PSI appears to be sensitive to treatment effects in that the participants in the treatment group had improved PSI ratings from pretest to posttest compared to individuals who only participated in the existing reentry programs in the therapeutic community (i.e., control group) (Hawkins et al., 1986).

For the APSI, mean interrater reliability (r = .86) and intrarater reliability (r = .84–.92) have been found to be adequate among a sample of 141 adjudicated delinquent adolescents (73% male; ages 11–18; 51% Caucasian; 39% Black) (Hawkins, et al., 1991; Jenson et al., 1993). Hawkins and colleagues (1991) found that pretest (α = .86) and posttest (α = .92) internal consistency was good to excellent for the full-scale APSI, and ranged from fair to good for the drug and alcohol avoidance skills (α = .85; α = .86), social anxiety problem-solving skills (α = .68; α = .75), and self-control skills (α = .65; α = .80) APSI subscales. Adolescents in the social skills treatment group (n = 69) had higher APSI scores on all subscales than individuals in the control group (n = 72), suggesting that the APSI appears to be sensitive to treatment effects.

Adolescent Relapse Coping Questionnaire (ARCQ)

Original Citation. Myers, M. G., & Brown, S. A. (1990). Coping responses and relapse among adolescent substance abusers. *Journal of Substance Abuse, 2*, 177–189.

For further information regarding the ARCQ, please contact: Mark G. Myers, Ph.D., Psychology 116B, VA Medical Center, 3350 La Jolla Village Drive, San Diego, CA 92161, USA.

Description. The ARCQ is an assessment designed to evaluate coping responses of substance abusing adolescents in tempting situations (Myers & Brown, 1996). The ARCQ presents one hypothetical situation that has been found to be of high-risk for relapse (i.e.,

a social gathering at a friend's house with drugs and alcohol being offered to the individual), followed by appraisal questions that assess self-efficacy for abstinence in the situation, importance of abstinence, and perceived difficulty of coping (using a 10-point rating scale). Next, a 33-item checklist of coping strategies is presented in which the adolescent indicates whether they would or would not use a given strategy in the high-risk situation. Another version is available in which the adolescent rates each coping strategy on a 7-point rating scale (1 = *Definitely would not do or think*; 7 = *Definitely would do or think*; Chung, Maisto, Cornelius, & Martin, 2004; Myers & Brown, 1996). The ARCQ yields three scales that Myers and Brown (1996) identified using principal components analyses based on the responses to the 33-item checklist (5 items not in the final scales): cognitive and behavioral problem-solving (12 items; "Make a plan of action and follow it"), self-critical thinking (7 items; e.g., "Criticize or lecture yourself"), and abstinence-focused coping (9 items; e.g., "Contact a support for staying clean").

Psychometric Properties. In a sample of 136 adolescents (79 male; ages 13–19; M_{age} = 16.9; 79% Caucasian, 8% Hispanic, and 5% Black) assessed one year following inpatient treatment for alcohol and substance abuse, internal consistency was adequate (α = .78–.82) (Myers & Brown, 1996). Correlations between the three ARCQ coping scales and the ARCQ appraisal ratings provided partial support for construct validity within this sample. The self-critical thinking ($r =$. 24, $p \leq$ .01) and abstinence-focused coping scales ($r = .19$, $p < .05$) were positively correlated with difficulty of coping ratings, and the cognitive and behavioral problem solving ($r = .18$, $p < .05$) and abstinence-focused coping scales ($r = .37$, $p \leq$ .01) were positively correlated with importance of abstinence ratings. The self-critical thinking scale was negatively correlated with abstinence self-efficacy ($r = -.26$, $p \leq$ .01). Correlations supported divergent validity in that the three scales were unrelated to age, self-esteem, and alcohol expectancies, with the exception of the self-critical thinking scale being associated with lower self-esteem ($r = -.20$, $p \leq$ .01). Concurrent validity was supported in that both self-critical thinking ($rs = .18$–.28) and abstinence-focused coping ($rs = -.22$ to $-.34$) were associated with substance use variables (Myers & Brown, 1996). However, the cognitive and behavioral problem-solving scale was unrelated to substance use variables ($rs = -.12$ to .06). Predictive validity was demonstrated for the abstinence-focused coping factor in that increased levels of abstinence-focused coping (at 1 year posttreatment) predicted fewer days using alcohol and/or drugs 1 year later (2 years posttreatment), while controlling for alcohol and drug use observed during the 1-year posttreatment (Myers & Brown, 1996). Overall, the abstinence-focused coping scale seems to assess successful adolescent strategies for substance-specific coping, the self-critical thinking items seem to reflect ineffective strategies and are related to negative affective states, while the cognitive and behavioral problem-solving scale seems to reflect a more general coping strategy than a substance-specific strategy.

Conclusions

Of the measures reviewed, two focused on skills related to alcohol (SCT and ASPRT), two focused on cocaine (CRACS and CRRT), and two focused on substances more generally (PSI/ASPI and ARCQ). Overall, the alcohol-related measures have received more attention in terms of empirical investigations; however, the SCT and ASRPT psychometric studies have been lacking in terms of ethnic/racial diversity and in representation of women. Further, neither alcohol instruments have been evaluated for use in adolescent populations. Cocaine-specific instruments appear to have promising psychometric properties, but include fewer situations that are directly related to social skills. For assessment of social skills specific

to polydrug or nonalcohol users, the PSI (for adults) or ASPI (for adolescents) may prove useful in assessing adolescents; however, the psychometric properties need further development particularly in regard to convergent validity with other social skills measures. Lastly, the ARCQ factors do not appear to be very useful in determining substance-specific social skills as the strongest scale in terms of psychometric properties, the abstinence-focused coping scale, includes several items unrelated to social skills (e.g., "use the support of a higher power," "think that drinking or using is bad"; Myers & Brown, 1996).

There are additional measures that could be useful in tapping into social skills specific to SUDs that were not included in the current review. For instance, the Adaptive Skills Battery (Jones & Lanyon, 1981; Nixon et al., 1992) and Interpersonal Problem Situation Inventory for Urban Adolescents (Farrell, Ampy, & Meyer, 1998) were not included due to limited information in terms of both validity and reliability. In addition, the Cocaine High-Risk Situations Questionnaire (Michalec et al., 1992) was not reviewed as it only indicates what type of situation the individual has used or is likely to use but does not assess social skills in general or how the individual's social skills may contribute to relapse in these situations.

CONCLUSIONS

This chapter provided an overview of SUDs, the relationship between social skills and SUDs, assessment considerations for individuals with SUDs, and selected global and specific measures for use with this population. Both substance abuse and substance dependence appear to be related to impaired social skills and can have a reciprocal relationship with one another such that each maintains or exacerbates problems with the other. Individuals with an SUD may be particularly vulnerable to social skill deficits specific to situations that are a high risk for substance use. Assessment considerations include an evaluation of the permanence and pervasiveness of the social skills deficits, examining factors such as time since last use, symptoms of intoxication and withdrawal, cognitive deficits, comorbid psychopathology, and both global and specific skills. Four instruments that included a segment assessing more general social functioning (Addiction Severity Index, Teen Addiction Severity Index, Drug Use Screening Inventory, and Adolescent Drug Abuse Diagnosis) and six instruments assessing social skills specific to substance use (Situation Competency Test, Alcohol Specific Role Play Test, Cocaine-Related Assessment of Coping Skills, Cocaine Risk Response Test, Problem Situation Inventory, and Adolescent Relapse Coping Questionnaire) were reviewed. Assessment of social functioning with general measures such as the DUSI (for adolescents or adults) or the ASI (for adults only) could be used as initial screening of social skills deficits. Although clinicians and researchers may choose to use typical measures of social skills with this population, there is also a need to assess substance-specific skills. Substance-specific skills do not necessarily present within typical social skills assessments.

Future research is needed with regards to SUDs other than alcohol as most of the research examining social skills and SUDs, including the development and validation of assessments, has been conducted in primarily alcohol-dependent and/or abusing samples. Given that a clinician is more likely to encounter polydrug users than individuals using one substance alone (SAMHSA, 2005), research focusing on alcohol only ignores a large portion of the SUD treatment-seeking population. Further, the samples are predominately male Caucasian/Euro-American. This is a serious limitation in drawing conclusions regarding the psychometric properties of the assessments, as well as the association between social skills and SUDs for non-Euro-Americans and women. Given recent findings that women are becoming more similar to men in their substance use and SUD rates (e.g., Kessler et al., 2005), more

up-to-date research examining social skills assessment in women is clearly needed. Secondly, cross-cultural variation has been noted in attitudes regarding substance use, perceptions of SUD symptoms, and thresholds for clinical cutoffs within SUD instruments (e.g., Room, 2006). Thus, future research should include more diverse samples, including individuals from a variety of racial, ethnic, and /or cultural backgrounds, women and men, polydrug users, as well as a more thorough evaluation of current instruments in both alcohol and other SUDs.

Lastly, current and future assessment information should be more readily available to mental health and substance abuse researchers and clinicians. As the fields of mental health and substance abuse have often been separated with few individuals bridging both, the progress of developing sound, empirically validated social skills assessments within this specialized population may have been limited. Therefore, future research should build on the work done thus far addressing the limitations, with an emphasis on dissemination of information to improve practice.

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Part IV
Measure Reviews

Chapter 16
Child Measures

Preface

Agnieszka K. Serwik, Lauren J. Holleb, and Jessica Fales

The following section brings together measures of children's social skills from all possible domains. Some of the most popular measures of children's social skills are reports by others, such as parents, teachers, and peers. For information on the self-perception of social skills, self-report instruments may be administered. As this review demonstrates, these types of measures are often standardized and convenient to administer and score. Their formats include rating scales, questionnaires, interviews, and analogue observations. Both the clinician and researcher will find utility in the measures reviewed.

Not all possible methodologies are reviewed in the child measures section. Specifically, direct observation and sociometric procedures are not reviewed as they are best described as a collection of procedures that can be adjusted to meet the demands of the clinician or researcher. Although more difficult to implement than questionnaires, these procedures offer particularly strong external validity and are thus important to the assessment of social skills. For example, naturalistic observation may be considered the exemplary standard against which other forms of assessment are compared (Merrell, 2001). Sociometric procedures can be used as part of an assessment to identify children in need of social skill interventions and provide a method to assess the outcomes of such interventions (Foster, Inderbitzen, & Nangle, 1993). These methods are flexible and idiographic, allowing for their use in a variety of environments and with various populations. The same characteristics that make these methods appropriate for diverse needs, however, also make the procedures difficult to review. Practitioners and researchers are advised to consider their unique needs in assessment and

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consult the research for methods that may fit these needs. The following review is offered for guidance.

Direct Observation

Standardized observational schemes, currently used in clinical or research applications, are rare since they are often situation or need specific (Merrell, 2001). The literature on social skill assessment reveals that many observation techniques are developed expressly for the purposes of a given investigation and are rarely used in subsequent studies. Often when observational assessments or behavioral peer ratings are used again they are fundamentally altered leading to a lack of established reliability and validity across studies or populations. In addition, many observational measures remain unnamed, thus making them difficult to locate and acquire.

Unlike much of the observation literature, a few research teams have constructed methods with empirical backing and development. For example, the Contingencies for Learning Academic and Social Skills Consultant Observational Code (CLASS; Hops, Beickel, & Walker, 1976) was developed as part of a classroom behavioral intervention to assess appropriate classroom behavior. The Peer Interaction Recording System (PIRS; Hops, Todd, Garrett, & Stokes, 1975) assesses children's social interactions during free play and can be used to identify children in need of intervention, as well as evaluate treatment outcomes. Similarly, the Play Observation Scale (POS; Rubin, 1985) evaluates children's social adaptation and participation in naturalistic play situations. Finally, especially applicable to clinical uses, Stage Three of the Systematic Screening for Behavior Disorders (SSBD; Walker & Severson, 1990) uses observational data of children's social interactions to identify children with externalizing and internalizing disorders.

In addition to the more established assessments, other observational measures can be used as models for practitioners or researchers wishing to construct their own methods. These can generally be categorized according to purpose, population, or setting. Specifically, direct observation is frequently used to evaluate social skills training programs or interventions (see Bierman & Furman, 1984; Bierman, Miller, & Stabb, 1987; Dougherty, Fowler, & Paine, 1985; Ladd, 1981; Strain, Steele, Ellis, & Timm, 1982; Strain & Timm, 1974). Other clinical uses can include differentiating between diagnoses or providing a better understanding of disorders (see Abikoff, Martin, & Gittelman, 1985). In research settings, observations aid in validating other measures or bootstrap with other measures to build their own validity (see Connolly & Doyle, 1981; Greenwood, Walker, Todd, & Hops, 1979; Mize & Cox, 1990; Rydell, Hagekull, & Bohlin, 1997; Vaughn & Waters, 1981). Another research application includes testing theory or contributing to a better understanding of a construct (see Coie & Dodge, 1988; Dodge, 1983; Dodge, Coie, & Brakke, 1982; Dodge, Schlundt, Schocken, & Delugach, 1983; Greenwood, Todd, Hops, & Walker, 1982; Greenwood, Walker, Todd, & Hops, 1981). When working with distinct populations, direct observations accommodate special considerations. For example, observation procedures have been developed for use with children who have disabilities (see Doll & Elliot, 1994; Dougherty et al., 1985; McConnell & Odom, 1999; Odom & McConnell, 1985), and behavioral, psychological, or peer problems (see Bierman et al., 1987; Bierman, Smoot, & Aumiller, 1993; Gresham, 1981). Finally, observational assessment of social skills can be specific to location, such as psychiatric inpatient units (see Kazdin, Matson, & Esveldt-Dawson, 1984; Kazdin, Esveldt-Dawson, Sherick, & Colbus, 1985), schools (see Walker, Greenwood, Hops, & Todd, 1979), or play settings (see Ballard, 1981).

Sociometric Procedures

A "sociometric procedure" may refer to several different assessment methods differentiated only by the administration process. For example, Foster and colleagues (1993) note that differences in scoring and procedure create difficulties in evaluating the psychometric properties of sociometric assessment. Coie, Dodge, and Coppotelli (1982) caution that the definitions of key constructs and terms in one study may be quite different from another study. Finally, sociometrics are used mainly in research and may be impractical to use in clinical settings.

Sociometric procedures should be carefully chosen to meet the needs of the researcher or clinician. Some standardized measures have been developed using this methodology. Additionally, many variations of the basic procedure have been developed that differ by the aspect of social skills assessed and the process by which they are implemented. Researchers and clinicians are encouraged to consider the individual needs of their project and consult the citations provided below.

Though limited in number, some sociometric measures are standardized across studies. For example, the Pupil Evaluation Inventory (PEI; Pekarik, Prinz, Liebert, Weintraub, & Neale, 1976) can be used for children in grade school and asks participants to check all names of classmates that fit each of the 35 behaviors described. The Children's Social Behavior Inventory (Carlson, Lahey, & Neeper, 1984) is another matrix measure that provides information about 31 specific behaviors, rather than a global indication of acceptance.

Sociometric evaluation can vary in the behavior that is being evaluated (i.e., the questions asked). For example, some methods are quite simple, asking students to identify classmates they like most and classmates they like least (see McConnell & Odom, 1986). The resulting data can indicate the degree to which children are accepted, rejected, neglected, or seen as controversial by peers in terms of popularity, status, and acceptance (Coie et al., 1982). Other variations may ask children to name peers who fit behavioral descriptors of interest to the researcher or clinician. Specifically, a child might be asked to name classmates who keep to themselves or are friendly (Coie & Dodge, 1983; Coie et al., 1982). One example of a well-established assessment which gathers such information is the Revised Class Play procedure (Bower, 1969; Masten, Morison, & Pellegrini, 1985). Such a nomination procedure would assess classmate perceptions of specific social skills displayed by the child, rather than a more global and related construct such as popularity.

The method of presentation (i.e., how the questions are asked) can also vary in this type of peer evaluation. First, positive and negative nominations are often constrained in number, with children asked to nominate only the most liked or disliked peers (Yugar & Shapiro, 2001). To avoid a lack of data for children who are not nominated by others, some prefer to present a list of the entire class and then ask children to rate their classmates on a dimension of behavior or popularity (e.g. "How much do you like this peer?"). This procedure generally uses a 3-point Likert scale for preschool children or a 5-point version for older children (Asher, Singleton, Tinsley, & Hymel, 1979; Connolly, 1983). The manner in which peers are presented can vary from a list of the names of all children in the classroom (Ray, Cohen, & Secrist, 1995) to using pictures of classmates (Hazen & Black, 1989) as prompts for children who are too young to read.

In sum, direct observation of social behavior and sociometric evaluation are important aspects of social skill assessment. However, these techniques may be difficult to implement in clinical settings, pose a challenge in understanding how to adapt to personal needs, and often require additional consultation of the literature. This review offers beginning guidance for those clinicians or researchers embarking on the challenge of using these methods.

CHILD INTERVIEW

Molly Adrian and Agnieszka K. Serwik

Berkeley Puppet Interview

Original citation

Ablow, J. C., & Measelle, J. R. (1993). *Berkeley Puppet Interview: Administration and Scoring Manuals.* Berkeley: University of California.

Measelle, J. R., Ablow, J. C., Cowan, P. A., & Cowan, C. P. (1998). Assessing young children's views of their academic, social and emotional lives: An evaluation of the self-perception scales of the Berkeley Puppet Interview. *Child Development, 69*, 1556–1576.

Purpose

To assess young children's self-perceptions.

Population

Children aged 4 $\frac{1}{2}$ – 7 $\frac{1}{2}$.

Description

The Berkeley Puppet Interview (BPI) aims to measure young children's perception of their school adjustment by assessing academic, social, and emotional domains as well as family environment. The BPI is based on the assumption that children can provide domain-specific descriptions and judgments about themselves in specific areas of competence. Children's self-perception is comprised of 60 items falling into six separate scales: academic competence, achievement motivation, social competence, peer acceptance, depression-anxiety and aggression-hostility. This interview presents positive and negative poled responses to assess children's self perceptions through utilization of puppets. The child is presented with two identical puppets "Iggy" and "Ziggy." One puppet presents a positive self-statement (e.g., "I have a lot of friends at school") and then the other puppet presents a negative self-statement (e.g., "I don't have a lot of friends at school"). Children are then asked "How about you?" Children are allowed to respond in any format they prefer.

Administration and scoring

The BPI is administered individually with the use of two identical hand puppets. Interviews are videotaped and coded based on the degree to which the children's responses parallel one of the puppet's statements on a 7-point Likert-type scale, on which a rating of 1 represents a very negative self-perception and a rating of 7 is indicative of a very positive self-concept. Items comprising each domain are then averaged to determine overall domain perception.

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Psychometric properties

Norms. Psychometric properties were initially evaluated based on a sample of 97 children involved in a longitudinal study. Children in the sample completed the BPI in preschool, kindergarten, and at the end of first grade. Means and standard deviations are provided by age level. The mean on the social competence scale for preschoolers was 4.49 (SD = 1.17), for kindergarteners was 4.52 (SD = 1.63), and for first graders was 4.76 (SD = 1.55).

Reliability. Interrater agreement for the BPI in this study was high with exact percent agreement for preschool children equal to 97.6%, for kindergarteners equal to 94.7%, and for first graders equal to 98.2%. Each of the six scales demonstrated acceptable levels of internal consistency ranging from 0.63 to 0.76 across all 3 years.

Validity. Principal-component analyses confirmed the six factors. The criterion validity of the BPI was also examined in relationship to teacher and parent report of each domain as well as standardized achievement test scores. Cross-informant agreement ranged from 0.09 to 0.44 and improved with age. The authors concluded that the agreement between children's report and ratings-by-other tends to be at least as strong as the level of agreement between adult informants. Children's self-perceptions were also correlated with their standardized achievement test scores in math and reading. Results indicated that perceived achievement motivation was associated with scores in math and reading for kindergarten (0.26 and 0.30, respectively) and first grade (0.35 and 0.33, respectively). In addition, the depression-anxiety scale was significantly correlated with math achievement at both kindergarten and first grade time points (−0.34 and –0.14, respectively).

Source

The measure can be obtained from Jeffery R. Measelle, University of Oregon, 131 Straub Hall, Eugene, Oregon. His email address is measelle@uoregon.edu. Information can also be obtained through the web site: www.uoregon.edu/~dslab/BPIWorkshops/BPIWorkshops.html

Cost

There is no cost for this measure, but there is a cost for training. See the web site for details on training costs.

Alternative forms

An alternative form is being developed for use with Spanish-speaking children.

Enactive Social Knowledge Interview (ESKI)

Original citation

Mize, J., & Ladd, G. W. (1988). Predicting preschoolers' peer behavior and status from their interpersonal strategies: A comparison of verbal and enactive responses to hypothetical social dilemmas. *Developmental Psychology, 24*, 782–788.

Purpose

To assess preschool children's friendliness and assertiveness in response to hypothetical social situations using enactive assessment strategies.

Population

This measure was developed for preschool children.

Description

The ESKI is an analog interview measure of preschool children's strategies in social situations. According to the authors, the ESKI was developed based on past research suggesting that children offer a greater quantity and variety of responses to social dilemmas using enactive methodology than verbal assessments and that enactive strategies likely tap into children's social-cognitive scripts and their general beliefs regarding events that transpire during social interactions. Using puppets, children are presented with six hypothetical social situations that are typical of preschool classroom interactions and instructed to enact their responses. Responses are then evaluated on the basis of friendliness and assertiveness.

Administration and scoring

Administration occurs one-on-one with the examiner and the child. Using several puppets and small toys, the examiner presents six different hypothetical social situations and encourages the child to enact his/her response to the situation using a puppet. An example of a social situation is excluding a child from play. The child's responses and actions with the puppet are repeated by the examiner for clarification and audio recorded for future coding.

Using a coding manual, transcribed responses are matched to the strategy categories of friendliness and assertiveness. Each response is assigned a score on a 5-point scale. Friendliness rating scores range from high (5 = *prosocial strategy*) to low (1 = *hostile*) and assertiveness ratings range from high (5 = *dominant*) to low (1 = *passive*). *Psychometric Properties*

Norms. Psychometric properties were initially evaluated using a sample of 39 preschool children.

Reliability. Internal consistency, based on Cronbach's alphas, was 0.64 for enactive friendliness ratings and 0.78 for enactive assertiveness ratings. Two-week test–retest reliability was 0.77 for enactive friendliness ratings and 0.56 for enactive assertiveness ratings.

Validity. There is limited evidence available regarding the validity of the ESKI. In the study referenced above, enactive friendliness ratings were significantly correlated in expected directions with teacher-rated prosocial behavior ($r = 0.56$), teacher-rated aggressive behavior ($r = -0.46$), observed prosocial behavior ($r = 0.32$), and observed aggressive behavior ($r = -0.33$). Enactive friendliness ratings did not correlate significantly with measures of peer acceptance. No significant correlations were found between enactive assertiveness ratings and any of the alternate measures.

Source

Mailing address: Jacquelyn Mize, Ph.D., Professor, 203 Spidle Hall, Auburn University, Auburn, AL, 36849. Her e-mail address is jmize@auburn.edu.

Cost

There is no cost for this measure.

Alternative forms

The ESKI may also be administered as a verbal interview which involves the child and examiner looking at pictures of the social situations rather than acting out the situations with puppets.

Home Interview with Child (HIWC)

Original citation

Valente, E. (1994). *Home Interview with Child Technical Report.* Nashville, TN: Vanderbilt University.

Purpose

To assess children's tendency to make hostile attributions.

Population

This measure was developed for use with kindergarten through third-grade children.

Description

The Home Interview with Child was developed for the Fast Track project and adapted from Dodge (1980). The interviewer shows the child a series of eight drawings that depict two types of social situations. The first situation consists of ambiguous minor harm and the second situation is of an unsuccessful peer entry. After describing the situation, the interviewer asks the child two questions. The first question consists of an interpretation of the situation (i.e., "Why would they do that?"), and the second question measures the child's behavioral response to each provocation (i.e., "What would you do?").

Administration and scoring

In general, administration takes 20–30 min. The HIWC generates two open-ended verbal responses for each of the eight situations. The interviewer codes responses from the interpretation questions into one of three categories: hostile, nonhostile, or don't know. The responses from the behavioral questions are coded into one of six categories: don't know, do nothing, ask why, command, threaten, or retaliate. Three scales are obtained: Percent Hostile Attribution, Percent Aggressive and Threatening Behaviors, and Aggressive behavior.

The Percent Hostile Attribution scale is obtained by dividing the hostile category count by the sum of all the category counts. A higher score indicates more tendencies to interpret interactions as hostile. The Percent Aggressive and Threaten Behaviors score is calculated by summing all of the aggressive or threatening scores and dividing by the total number of behavioral responses. Higher scores indicate that aggressive responses were given more frequently than other responses. The Aggressive Behavior score is calculated by adding the

codes for the eight-story behavioral response codes. The scores for the Aggressive Behavior scale range from 0 to 40 with higher scores indicating more aggressive behavioral responses.

Psychometric properties

Norms. The psychometric properties are based on two samples: the first cohort of high-risk control sample in the Fast Track project ($N = 155$) and on a normative sample ($N = 387$). The means and standard deviations are given for each item of the HIWC for the high-risk control and normative samples.

Reliability. With regard to internal validity, Cronbach's alphas were found to range from 0.55 to 0.71 within each subscale.

Source

The measure and its technical reports can be obtained through the Fast Track web site: http://www.fasttrackproject.org

Cost

There is no cost for this measure.

The Interpersonal Negotiation Strategies Interview

Original citation

Schultz, L. S., Yeates, K. O., & Selman, R. L. (1988). *The Interpersonal Negotiation Strategies Interview: A scoring manual*. Boston: The Group for the Study of Interpersonal Development.

Purpose

To assess the development of children's social perceptions regarding interpersonal negotiation strategies.

Population

This measure has been utilized with children and adolescents aged 8–17.

Description

The Interpersonal Negotiation Strategies Interview (INS) is based on structural cognitive perspective taking and social information processing skills to understand children's implementation of specific interpersonal strategies in context. The INS measures negotiation strategy development in thought (INS-T) and development in action (INS-A). The INS is based on the assumption that there are four levels of strategies to manage interpersonal conflict: impulsive, unilateral, reciprocal, and collaborative. To assess for these levels, children are presented with four hypothetical stories that necessitate interpersonal negotiation. The

stories include four contexts: conflict with an unfamiliar adult, a familiar adult, an unfamiliar child, and a familiar child. After each story, the child is asked a series of seven standard questions.

Administration and scoring

Children are individually interviewed. The interviews typically last between 15 and 30 min. The answer to each question is scored according to which of the four possible levels of social perspective coordination it represented. These scores are then averaged within each story to yield scores for each context and a total score.

Psychometric properties

Reliability. Inter-rater agreement was assessed on 22 of the interviews and yielded 75% exact agreement and a moderate kappa coefficient of 0.56. The authors report another measure of reliability involving the correlations of average scores for the developmental level of each problem solving step across contexts. All of the correlations at each level were significant (mean $r = 0.80$). None of the correlations across steps were as high (mean $r = 0.50$).

Validity. Significant multivariate main effects were obtained for age groups and gender. In the Yeates, Schultz, and Selman (1991) study, the INS-T significantly predicted the Health Resources Inventory (HRI) and the total Child Behavior Checklist (CBCL) score but did not significantly correlate with peer-rated social preference. The INS-A was significantly correlated with the HRI and CBCL. The INS-A was marginally correlated with peer-rated social preferences. The INS explained 7.5% of the variance in this sample.

Source

This measure can be obtained from Robert Selman, Ph.D. His email address is robert_selman@gse.harvard.edu. Dr. Selman's phone number is 617-495-3038. Information can also be obtained through his web site: http://gseacademic.harvard.edu/~tolerance/. This measure is available in Appendix B.

Cost

There is no cost for this measure.

The Pictorial Scale of Perceived Competence and Social Acceptance for Young Children

Original citation

Harter, S., & Pike, R. (1984). The pictorial scale of perceived competence and social acceptance for young children. *Child Development, 55*, 1969–1982.

Purpose

To assess perceived competence and social acceptance in young children across several domains.

Population

Although the measure was originally used for children between the ages of 4 and 7 years, researchers have also used it with a slightly older sample (i.e., 3rd graders).

Description

The Pictorial Scale of Perceived Competence and Social Acceptance for Young Children is a version of the Self-Perception Profile for Children questionnaire that is presented in interview format to remove reading ability requirements. Instead, a pictorial format is used whereby the child is shown a set of pictures and responds to verbal prompts. There are two versions of the measure with one administered to children in preschool and kindergarten and the other for first through third grade children. Although there is an overlap in the two versions, each has items assessing unique competencies for the specific age group (i.e., good at puzzles versus good at numbers). The measure assesses perceived performance in areas of cognitive competence, physical competence, peer acceptance, and maternal acceptance. Each of these scales has six items.

Administration and scoring

Children are presented with pictures that illustrate a child engaged in an activity. The illustrated children are the same gender as the participant, though activities are identical across gender. Pictures are cycled in the order of cognitive competence, social acceptance, physical competence, and maternal acceptance. Pictures are presented two at a time with a more competent or accepted child on one side and a less competent child presented on the other side. The placement of the two children is counterbalanced in each subscale. The participant is read a statement about the child in each picture. The administrator then asks which child the participant is most like. After the child responds, the administrator further prompts the participant to indicate the degree to which he or she is like the child in the picture. This response format is used to reduce socially desirable responding. Responses are scored on a 4-point scale (1 = *least competent*, 4 = *most competent*). For each scale, scores are averaged to determine the overall rating of competence or acceptance in a given domain.

Psychometric properties

Norms. Standardized norms by age and gender are not provided. Harter and Pike (1984) reported that children generally rated their competence and acceptance positively, with mean scores ranging from 2.8 to 3.6 for subscales across ages. These means are based on a sample of 90 preschool children, 56 kindergartners, 65 first graders, and 44 second graders (Harter & Pike, 1984).

Reliability. Across ages, subscale internal consistencies ranged from 0.50 to 0.85, but increased to 0.75–0.89 when using factor scores (Harter & Pike, 1984). The authors note that the positive skew and restricted range of responses may have lowered reliability. In a study of 115 second and third grade children identified as "average" or "aggressive" by their teachers, reliabilities ranged from 0.64 to 0.81 on the subscales for this slightly older sample (Hughes, Cavell, & Grossman, 1997).

Validity. The factor pattern of the Pictorial Scale of Perceived Competence and Social Acceptance for Young Children indicates a two-factor solution of competence and acceptance. Loadings were higher for the grade school children (0.22 to 0.72) than for the younger

children (0.19 to 0.70), consistent with developmental expectations of more fine grained differentiation of self-appraisal with age.

Harter and Pike (1984) provided additional evidence of validity for the various subscales. For example, compared to self- and other reports of competence, teacher reports were more highly and significantly correlated with children's scores within a domain (cognitive = 0.37, physical = 0.30) than across domains (teacher cognitive/child physical = 0.11, teacher physical/child cognitive = 0.16). Additionally, children rated by teachers as being in the top or bottom quartile of cognitive competence had mean perceived competence scores that were significantly different from each other (3.8 versus 2.6). Further, in tracking the children's academic progress, Harter and Pike (1984) found that students who were subsequently held back a year in school had significantly lower perceived cognitive competence scores than those who advanced. Additionally, children who were new to the school had significantly lower perceived peer acceptance scores than those who attended school for at least one year (p < 0.01). For perceived physical competence, children born prematurely rated their physical competence as significantly lower than full-term children (p < 0.01), a finding that was consistent with their teacher-rated physical competence (p < 0.005). A measure of child depression/cheerfulness significantly correlated with the maternal acceptance scale (p < 0.001).

Of note, some studies evaluating the psychometric properties of the Pictorial Scale of Perceived Competence and Social Acceptance for Young Children using diverse samples have found results that differ from those reported by Harter and Pike (1984). For example, a study using a large, diverse, urban sample of preschool children was unable to replicate Harter and Pike's (1984) two factor structure for the measure and the authors questioned whether the measure was developmentally appropriate for economically disadvantaged preschoolers (Fantuzzo, McDermott, Manz, Hampton, & Burdick, 1996). The measure has also been validated with an international sample resulting in a partial replication of U.S. results, though cultural differences were apparent on responses to some items (El Hassan, 1999). Thus, researchers or practitioners using the measure with diverse samples should exercise caution when interpreting the results.

Source

For more information or to obtain a copy of the measure, contact Susan Harter, Ph.D., University of Denver, Department of Psychology, 2155 S. Race St., Denver, CO 80208-0204. Her phone number is 303-871-2478. Dr. Harter can also be reached by e-mail at sharter@du.edu.

Cost

The cost for the manual is $20, and each set of pictures is $30 (separated by sex and age).

Alternative forms

A self-report questionnaire version, the Self-Perception Profile for Children, can be used with children in late elementary and junior high school. A parallel teacher-rating form for the same population is available. For adolescent populations, researchers and clinicians are directed to the Self-Perception Profile for Adolescents.

The Preschool Interpersonal Problem-Solving Test (PIPS)

Original citation

Shure, M. B. (1992). *Preschool interpersonal problem-solving (PIPS) test: Manual.* (2nd ed). Philadelphia: Hahnemann University.

Purpose

To assess preschool children's social problem solving and thinking abilities.

Population

The measure is intended for children between the ages of 4 and 6 years, though older children have participated in some studies using the PIPS.

Description

The PIPS was originally formulated to identify children with deficits in interpersonal problem-solving abilities and to evaluate the results of subsequent intervention. The measure presents children with a problem involving same-age peers and another involving an authority figure (i.e., mother). The PIPS is administered in a pictorial format using verbal prompts for responses, so it does not require reading ability. There are two versions of the measure, such that the pictures of the children used in administration are the same sex as the participant. The measure assesses children's ability to provide different solutions to the same interpersonal problem (i.e., one child obtaining a toy from another child). Each child is presented with a minimum of seven pictorial prompts for the peer problems and five prompts for the authority problems.

Administration and scoring

Children are presented with three pictures for each peer problem. The first two pictures each depict a child of the same sex as the participant. The third picture shows a toy. As the pictures are shown, the administrator introduces each child in the picture and tells the participant that one of the children has been playing with the toy for an extended period of time but that the other child would also like an opportunity to play with the toy. To ensure comprehension and adequate recall, the administrator asks the child to name the presented children and report who is currently playing with the toy, and who would like to play with the toy. Finally, the participant is asked what strategy the second child could use to have an opportunity to play with the toy. As young children often have difficulty generating more than one solution to a given problem, the same problem is presented with different characters and toys to maintain the child's engagement and cooperation. All children are presented with a base number of seven pictorial prompts for the peer problems. However, if a child is able to provide seven unique solutions, further prompts are provided until the child is unable to generate new solutions. All generated solutions, even those that may be problematic or aggressive, are accepted if they are new and applicable to the presented problem. A similar procedure is employed for the mother problems, with the participant asked to determine what the child in the story

could do to reduce his or her mother's anger after damaging her belongings. Administrators may use a limited number of specific probes per pictorial prompt, depending on the child's answers. Testing time generally averages 30 min, with children tested on an individual basis.

Individual responses are categorized according to the type of response and whether it is a different response than previously provided. Each different response is added, and a total score is given as a combination of the number of unique peer and mother solutions. Some examples of peer problem answer categories include "Ask," "Please," "Loan," "Fair, Share, Turns," "Trade-Bribe," "Authority Intervention," "Trick," "Finagle," and "Force." A separate set of categories is used for mother problems. Other scores include further details on responses. For example, the Relevancy-Ratio represents the proportion of relevant responses to those that are not a solution. The Force-Ratio provides the proportion of forceful or aggressive responses to non-forceful responses. As a measure of how talkative the child is during the procedure, the Verbosity score indicates the number of comments or verbalizations made by the child during administration that do not include solutions.

Psychometric properties

Norms. Based on a sample of 469 urban, 4-year-olds, with approximately equal numbers of each sex, normative data provide cutoff scores for maladjusted versus adjusted children. Means and standard deviations for each problem are provided in the manual. These are divided into number of solutions given and solution categories.

Reliability. Based on a somewhat smaller sample of 4-year-olds ($N = 255$), common agreement for raters on response relevancy was 97%. Agreement on response scoring by broad categories reached 96%. Across other possible categories, agreement was above 91%. Test–retest reliability was calculated on 57 children at 1 week and on 180 children at 3–5 months post test. Results indicate a 1-week reliability coefficient of 0.72 and a 3–5 month reliability coefficient of 0.59 for the total score.

Validity. Across a variety of investigations as summarized in the manual (Shure, 1992), the PIPS has been found to differentiate between adjusted children and those with behavioral problems (e.g., impulsivity, inhibition). PIPS total and variety of response scores are related to teacher ratings of adjustment. Better adjusted children also provide fewer irrelevant responses. Further, PIPS scores are sensitive to changes in problem-solving ability and relate to associated changes in behavioral adjustment.

The PIPS also demonstrates discriminant validity. For example, the number of verbalizations overall does not relate to PIPS score, indicating that talkative children do not necessarily perform better simply because they vocalize more frequently. PIPS scores have a low, but significant correlation with intelligence, although these results are mainly seen at the extreme low end of the IQ scale.

Source

For more information and to obtain a copy of the measure, please contact Myrna B. Shure, Ph.D., Department of Psychology, Drexel University, Mail Stop 626, 245 N. 15th Street, Philadelphia, PA 19102. Dr. Shure's phone number is 215-762-7205. She can also be reached through e-mail: mshure@drexel.edu.

Cost

The Preschool Interpersonal Problem Solving (PIPS) costs $17.50.

Alternative forms

A separate version of pictorial prompts is available for boys and girls.

The Social Cognitive Skills Test

Original citation

van Manen, T., Prins, P., & Emmelkamp, P. (2001). Assessing social cognitive skills in aggressive children from a developmental perspective: The Social Cognitive Skills Test. *Clinical Psychology and Psychotherapy, 8*, 341–352.

Purpose

To assess social cognitive processing deficits in children.

Population

Children aged 8–12.

Description

The SCST was developed based on the assumption that children who are not socially competent demonstrate specific deficits and distortions in social information processes. The development of social cognitive skills is viewed as progressing in a hierarchical manner with eight core skills: identifying, discriminating, differentiating, comparing, perspective taking, relating, coordinating, and taking into account another's and one's perspective at the same time. Children are presented with six short stories with corresponding pictures. Each story presents a troublesome situation with another child or adult and is subsequently probed by eight questions assessing each of the eight skills.

Administration and scoring

Administration occurs one-on-one with the examiner and the child. The child answers two trial items to have the opportunity to ask questions and become familiar with the process. Next, the child is read the story while he or she is looking at the corresponding color pictures. Each question is scored as a 0 (wrong answer), 1 (original question not answered correctly, follow-up/clarification question answered correctly), or 2 (correct answer) for a maximum score of 16 for each vignette. The score indicates the level of skill mastery. As such, the authors argue that the SCST can assist in making a refined assessment that can guide efforts to target specific social information-processing problems.

Psychometric Properties

Norms. Psychometric properties were evaluated using a sample of 167 school-aged children. All children were between 6 and 12 years old. Based on this sample, the means and standard deviation for social cognitive levels for nonaggressive children ($N = 120$) and aggressive ($N = 80$) were reported for each of the steps. Multivariate analyses revealed significant differences in Comparing and Relating skills for aggressive and nonaggressive children.

Reliability. According to the authors, the psychometric qualities of the SCST are adequate. Internal consistency, as measured by Cronbach's alpha was 0.95, and test–retest reliability was 0.85 over a 1-month period.

Validity. Van Manen, Prins and Emmelkamp (2001) utilized the SCST in aggressive and nonaggressive youth. The results revealed significantly different means for the various levels based on one's group membership, and the authors concluded that the SCST was useful in the discrimination of aggressive and nonaggressive youth. Recent work suggests that SCST scores can discriminate autistic and control children (Coleman, Hare, Farrell, & van Manen, 2008).

Source

The measure can be obtained through the TestWeb publishing company. The mailing address is Het Spoor 2, 3994 AK Houten, Postbus 246, 3990 GA Houten. The web site is www.tests.bsl.nl. The publisher's telephone number is (030) 638 37 36. The e-mail address is klantenservice@bsl.nl.

Cost

The complete set, which includes the manual, score forms, and test materials for the measure, costs €99.00. Contact the publisher for additional information.

Alternative forms

This instrument is also available in Dutch.

Social Problem Solving Scale

Original citation

Dodge, K. A., Bates, J. E., & Pettit, G. S. (1990). Mechanisms of violence. *Science, 250*, 1678–1683.

Purpose

To assess children's social problem solving of situations common to peer interactions.

Population

Kindergarten through second grade children (the original version was used with children aged 4).

Description

The Social Problem Solving Scale was initially developed as part of a longitudinal study investigating the role of physical abuse in the development of subsequent aggression (Dodge et al., 1990). This original version, however, depicted drawings and videotapes of various provocation situations rather than social problems. More recently, the Social Problem Solving Scale has been used as part of the Fast Track Project [Conduct Problems Prevention Research Group (CPPRG), 1992]. The Social Problem Solving Scale requires children to verbally respond to prompts after presentation of a visual stimulus.

Administration and scoring

In the current version, interviewers present a series of eight drawings to children, with four pictures depicting a child who would like to enter a social activity and the other four showing a child in a social conflict. Children in the pictures are drawn as stick figures, such that the cards apply to children of each sex and various races. After the administrator reads a script which describes each picture, the child is asked how he or she would respond if he or she were the main character in the story. After providing an initial response, the child is prompted by the administrator to provide two more unique solutions to the problem.

Child responses are classified into six categories: Aggressive, Competent, Authority-Punish, Authority-Intervene, Passive-/Inept, and Irrelevant/Other. Notably, researchers have used various code combinations when employing this measure (see CPPRG, 1999). As it is possible for answers to overlap in categories, administrators are instructed to assign the category with the lowest rating. Several other calculations can be completed using the child's responses. For example, administrators can use the number of valid responses for each problem and a Picture Response Percentage can be calculated for each problem and category, which is determined by taking the number of responses for each category and dividing it by the number of valid responses. Finally, mean percentages are also calculated for each category across the various social problems.

Psychometric properties

Norms. Psychometric properties of the Social Problem Solving Scale were evaluated using a sample of 155 high risk control and 387 normative first grade children participating in the Fast Track Project. Additional psychometric properties are available for these children during second grade. Means and standard deviations for the categories and mean percentage scores are provided on the Fast Track Project web site. These are presented separately according to the control and normative samples.

Reliability. Corrigan (2003a) reports that coefficient alphas are modest for each of the categories but adds that such results are an expected effect of using multiple interviewers to administer and score the measure on the Fast Track Project. For Picture Response Percentages, alpha coefficients range from 0.36 to 0.75 across the categories. When categories were collapsed as the percentage of prosocial/competent answers provided by a child, the internal consistency using Cronbach's alpha was 0.70 and the inter-rater agreement using kappa was 0.94 (CPPRG, 1999).

Validity. Fast Track researchers found significant differences between the high risk and normative groups using the mean percentages on the Competent and Authority/Punish categories (Corrigan, 2003a). The second grade sample had significant differences on the Aggressive, Competent, and Authority/Punish categories (Corrigan, 2003b). Floor effects were noted in both samples in several categories. The Prosocial/Competent category was significantly related to teacher reports of behavioral problems, and children who were part of the Fast Track Project performed better in social problem solving than control children (CPPRG, 1999).

Source

For more information about the measure and information about the picture vignettes, contact the Fast Track Project through email at fasttrack@duke.edu. To obtain a copy of the script or to review the measure psychometrics, visit the Fast Track Project web site at www.fasttrackproject.org.

Cost

There is no cost for the problem script.

CHILD SELF-REPORT

Michelle S. Rivera, Molly Adrian, and Elizabeth J. Shepherd

The Matson Evaluation of Social Skills with Youngsters (MESSY)

Original citation

Matson, J. L., Rotatori, A. F., & Helsel, W. J. (1983). Development of a rating scale to measure social skills in children: The Matson Evaluation of Social Skills with Youngsters (MESSY). *Behaviour Research and Therapy, 21*, 335–340.

Purpose

To assess both appropriate and inappropriate social skills.

Population

Children and adolescents aged 4–18.

Description

The MESSY was developed as an alternative to behavioral role-play tests. Items included in the MESSY were based on standardized measures such as the Child Behavior Profile, the Behavior Problem Checklist, and Connor's Hyperactivity Scale.

The MESSY Self-Report version is a 62-item self-report measure of appropriate and inappropriate social skills. Items include discrete behavioral description and are each rated by the child or adolescent on a 5-point scale (1 = *not at all*, 5 = *very much*). The measure consists of five factors: appropriate social skills (e.g., "I feel good when I help someone"), inappropriate assertiveness (e.g., "I make fun of others"), impulsive/recalcitrant (e.g., "I gripe or complain often"), overconfident (e.g., "I stay with others too long (wear out my welcome)"), and jealousy/withdrawal (e.g., "I feel angry or jealous when someone else does well").

Administration and scoring

Administration time is approximately 15 min. Factor scores are derived by summing the individual item scores for that factor.

Psychometric properties

Norms. Psychometric properties are based on two samples of 480 children and adolescents aged 4–13 years. Means and standard deviations broken down by age and gender are provided in the manual.

Michelle S. Rivera, Molly Adrian, and Elizabeth J. Shepherd • Department of Psychology, 5742 Little Hall, University of Maine, Orono, ME 04469.

Reliability. Internal consistency has been assessed using Cronbach's alpha and found to be 0.80.

Validity. Factorial analysis with varimax rotation revealed five factors for the self-report version. These five factors are: appropriate social skills, inappropriate assertiveness, impulsive/recalcitrant, overconfident, and jealousy/withdrawal. The first two factors are consistent with factorial analysis of the teacher rated version. Loadings for each of the factors ranged from 0.30 to 0.64.

To determine construct validity, the MESSY self-report was administered with a structured interview, a role play of social skills, peer nominations, a teacher measure of popularity, a teacher measure of social skills, and a teacher measure of general social adjustment. The MESSY was significantly correlated with the structured interview ($r = 0.28$), the teacher measure of popularity ($r = 0.23$), the teacher measure of social skills ($r = 0.35$), and the teacher measure of general social adjustment ($r = 0.30$).

Source

The MESSY can be ordered through IDS Publishing. IDS Publishing can be contacted through their web site, idspublishing.com, or at 614-885-2323.

Cost

The cost for the MESSY is $85 for a starter kit, which includes 25 self-report forms, 25 teacher forms, 25 subject-scoring forms, and a manual. Materials are also available individually for $30 a manual, $25 for 25 self-report forms, and $10 for 25 subject-scoring forms. Scoring software is available for $99.

Alternative forms

A teacher report form of the MESSY is also available. In addition, the MESSY is available in versions for children who are deaf or hard of hearing (Matson Evaluation of Social Skills with Youngsters – Hard of Hearing Version; MESSY-DHH) and in a version for mentally retarded children (The Matson Evaluation of Social Skills for Individuals with Severe Retardation). The MESSY has also been translated into several other languages (e.g., Spanish, Chinese, and Turkish).

Piers-Harris Children's Self-Concept Scale, Second Edition (PIERS-HARRIS 2)

Original citation

Piers, E. V., & Herzberg, D. S. (2002). *Piers-Harris Children's Self Concept Scale: Manual* (2nd ed.). Los Angeles, CA: Western Psychological Services.

Purpose

To assess self-concept based on the child's own perceptions.

Population

Children and adolescents aged 7–18.

Description

The Piers-Harris 2 is an updated and revised version of the original Piers-Harris Self Concept Scale (Piers & Harris, 1964). This revision builds on the psychometric foundation of the test while preserving the fundamental characteristics of the instrument. The new edition was normed on an expanded age range (7–18 years), reduces the number of items on the scale from 80 to 60, provides additional interpretive guidelines, and allows for computerized administration. The instrument includes two validity scales, which detect response bias and random responding.

The Piers-Harris 2 is a 60-item standardized self-report questionnaire of self-concept. The six subscales include Physical Appearance and Attributes, Intellectual and School Status, Happiness and Satisfaction, Freedom from Anxiety, Behavioral Adjustment, and Popularity. Children read statements such as "It is hard for me to make friends," "I am different from other people," and "I am cheerful," and respond "yes" or "no" to indicate if the item is true for them. The Piers-Harris 2 is typically used in classroom screenings and clinical settings to identify children who might benefit from additional evaluation.

Administration and scoring

Administration time may range from 10 to 15 min depending on the child's reading ability. The instrument requires a third-grade reading level.

The Piers-Harris 2 may be scored by hand or by using a software package. Obtained scores include raw scores, percentile scores, overall stanine scores, and conversion to normalized T-scores. The Total Score reflects overall self-concept and is compared to the norms, with high scores indicating positive self-concept and low scores indicating negative self-concept. Subscale scores allow for more detailed interpretation and suggest evidence of relative strengths and weaknesses. Scoring options include hand scoring or computer scoring by the test administrator, as well as services offered by the publisher, such as mail-in answer sheets and FAX service.

Psychometric properties

Norms. With the introduction of the second edition of this instrument, new nationwide normative data were collected based on a sample of approximately 1,400 students aged 7–18. This standardization study suggested excellent internal stability. Means and standard deviations for each age and gender category are provided in the manual.

Reliability. Test–retest reliability is supported by numerous studies examining the original Piers-Harris scale.

Validity. Exploratory factor analyses revealed a six-factor solution aligning with the distribution of items across the six distinct subscales. This solution is consistent with earlier examinations of the original Piers-Harris. Both the original and revised versions have been found to demonstrate expected relationships with self-concept questionnaires and other measures of behavior and personality characteristics. For example, the Piers-Harris correlates in expected directions with the Youth Self-Report Form and the Social Skills Rating System – Student Questionnaire.

Criterion-related validity is also evident in that the Piers-Harris can differentiate between groups expected to differ in self-concept.

Source

The Piers-Harris 2 is available through Western Psychological Services. They can be contacted via their web site http://wpspublish.com/Inetpub4/index.htm or at the following phone numbers 800-648-8857 (U.S. and Canada) or 310-478-2061.

Cost

The Piers-Harris 2 costs $119 for a complete kit which includes 40 forms and a manual.

Alternative forms

A Spanish test booklet is also available.

The Self-Perception Profile for Children

Original citation

Harter, S. (1982). The Perceived Competence Scale for Children. *Child Development, 53*, 87–97.

Purpose

To assess children's perceptions of competence in various domains as well as their perceptions of general self-worth.

Population

Elementary and junior high school children.

Description

The Self-Perception Profile for Children (also known as "What I am Like" and the Perceived Competence Scale for Children) is a 36-item questionnaire assessing perceived competence in five domains as well as general self-worth. Subscales assess scholastic competence, social acceptance, physical appearance, athletic competence, behavioral conduct, and general self-worth. Each subscale is comprised of six items. Items are presented in statement pairs and children are asked which they are most like (e.g., "Some kids often forget what they learn" vs. "Other kids can remember things easily"). Once deciding whether they are most like the statement on the right or left, children must decide if that statement is *sort of true for me* or *really true for me*. This response format is used to reduce socially desirable responding.

Administration and scoring

The questionnaire can be individually or group administered. Items are scored on a scale of 1–4 with higher scores indicating higher perceived competence. Scores for each of the four subscales are derived by summing and then averaging item scores. Cutoff scores for the Self - Perception Profile for Children are not provided.

Psychometric properties

Norms. Psychometric data were obtained from 133 children aged 9–12 (Harter, 1982). Replications of these data were obtained from three samples of third through sixth graders and one sample of third through ninth graders. Means and standard deviations are provided by age group.

Reliability. Internal consistency for each subscale was determined using Cronbach's alpha. Among the first five samples described above, these values ranged from 0.75 to 0.84 for the social competence subscale, 0.75–0.85 for the cognitive competence subscale, 0.77–0.86 for the physical competence subscale, and 0.73 to 0.82 for the general self-worth subscale.

Test–retest reliability over a 3-month period was assessed in a sample of 208 students in third through sixth grade. Reliability was 0.80 for the social competence subscale, 0.78 for the cognitive competence subscale, 0.87 for the physical competence subscale, and 0.70 for the general self-worth subscale. A separate sample of 810 students was retested after 9 months. Test–retest reliabilities for this sample were 0.75 for the social competence subscale, 0.78 for the cognitive competence subscale, 0.80 for the physical competence subscale, and 0.69 for the general self-worth subscale.

Validity. Using an oblique rotation, a four-factor solution (i.e., cognitive competence, social competence, physical competence, and general self-worth) was obtained. Based on a sample of 341 students in third through sixth grade, item loadings on the social competence factor ranged from 0.40 to 0.66. Item loadings on the cognitive competence subscale ranged from 0.42 to 0.69. The physical competence scale had item loadings from 0.45 to 0.79, and item loadings for general self-worth were from 0.35 to 0.69. Similar factor structures were obtained with other samples including a sample of seventh through ninth graders.

Source

This measure can be obtained through mail by contacting Dr. Susan Harter. Her Mailing address is: Susan Harter, Ph.D., University of Denver, Department of Psychology, Frontier Hall, 2155 S. Race St., Denver, CO, 80208.

Cost

The cost of the questionnaire is $20.00. This includes the manual, questionnaire, scoring form, and mailing and handling charges. Contact the author for additional information.

Alternative forms

A parallel teacher-rating form for the same population is available. The Pictorial Scale of Perceived Competence and Social Acceptance for Young Children is a downward extension of the scale with two versions (one for preschoolers and kindergartners and one for first and second graders). Comparable measures exist for adolescent, college-age, learning disabled, and adult populations.

Self Report of Personality-Child (SRP-C) in the Behavior Assessment System for Children, 2nd Edition (BASC-2)

Original citation

Reynolds, C. R., & Kamphaus, R. W. (1992). *The Behavior Assessment System for Children Self Report of Personality*. Circle Pines, MN: American Guidance Service.

Purpose

To aid in the identification and differential diagnosis of emotional-behavior disorders in children and adolescents.

Population

Children aged 8–11.

Description

The system was developed through a combination of rational and empirical methods. Initially, potential domains were identified through existing rating scales, empirical results, and clinical experience. Next, factor analysis was conducted with two national samples and a standardization sample. The authors state the BASC system allows for systematic measurement of children's strengths and weaknesses.

The BASC-2 is a multi-method, multi-informant assessment battery that includes the Teacher Rating Scales, Parent Rating Scales, Structured Developmental History, Student Observation System, and Self-Report of Personality (SRP). The SRP-C is a self-report form that asks children to report on their thoughts and feelings through a series of true/false questions to assess their behavioral and personality characteristics. The SRP-C consists of 139 items to form 14 scales: anxiety, attention problems, attitude toward school, attitude toward teachers, atypicality, depression, hyperactivity, interpersonal relations, locus of control, relations with parents, self-esteem, self-reliance, sense of inadequacy, and social stress. The scale produces four summary factors: clinical maladjustment, school maladjustment, personal adjustment, and emotional symptoms index. The SRP-C also contains three validity scales: validity; consistency, where high scores might indicate inattention, carelessness, or poor comprehension of test items; and response pattern indices suggesting extreme stereotypic item endorsement.

Administration and scoring

The SRP-C takes about 20–30 min to complete. Problematic adjustment is indicated by high scores on the clinical scales and low scores on the adaptive scales. The SRP-C yields *T*-scores and percentiles based on a national norm group by age and gender in a normative group or a comparison group of clinically referred children. General sample and clinical sample profiles can be constructed based on percentiles or standard scores. In plotting the profiles, BASC users are encouraged to indicate the confidence interval for each score appearing in the profile graph. The authors recommend using a *T*-score above 70 to indicate clinical significance for clinical scales and a *T*-score of less than 30 to indicate significance on adaptive scales. At-risk range is considered a *T*-score of 60–69 for clinical scales and 31–40 for adaptive scales.

Psychometric properties

Norms. The BASC norm sample was collected at 116 sites across the Unites States and is diverse. This SRP-C sample was comprised of 5,413 children aged 8–11. Three different norms can be used to convert raw scores to standard scores: general, gender-specific, or clinical.

Reliability. The internal consistency coefficients ranged from 0.70 to 0.80 on the narrow-band clinical and adaptive scales. Test–retest reliability in a one month interval averaged 0.70 and ranged from 0.52 to 0.88. The 7-month test–retest correlations for a small sample of children ($n = 44$) averaged approximately 0.60 and ranged from 0.39 to 0.79, suggesting a moderate to high correlation.

Validity. In the manual, Reynolds and Kamphaus summarize evidence for the validity of the SRP-C through the factor structure, relations with scores from other self-report measures, and comparison of SRP profiles to clinical groups. One measure of validity was confirmed through exploratory and co-variance structure analyses of the three composite factors. The construct validity of the SRP-C was assessed by examining the intercorrelations among the Social Competence and Antisocial Behavior subscales comprising the SRP-C. The correlations between the scales were moderately high to high ranging from 0.76 to 0.87. The factor scores on each scale were highly related to the total score, rs ranging from 0.89 to 0.96. SRP-C scores also exhibited significant correlations with analogous scales on the Youth Self-Report (YSR). In addition, the authors also present mean profiles of different diagnostic groups and special education groups. Most of these results were as expected (e.g., those diagnosed with depression have higher mean score on the depression scale).

Source

The measure can be obtained through Pearson Assessments. Their mailing address is: Pearson Assessments, Order Department, P.O. Box 1416, Minneapolis, MN 55440. They can also be contacted at 800-627-7271 or ags.pearsonassessments.com.

Cost

The BASC-2 examination set starts at $109.00 for the manual and one hand-scored form for each of the following: the Teacher Rating Scale, Parent Rating Scale, Self Report of Personality, Parent Feedback Form, plus Structured Developmental History and Student Observation System.

Alternative forms

The SRP is available in Spanish. There are also parallel forms for adolescent and college-age populations.

Social Skills Rating System (SSRS) – Student Elementary Form

Original citation

Gresham, F. M., & Elliott, S. N. (1990). *Social Skills Rating System: Manual*. Circle Pines, MN: American Guidance Service.

Purpose

To assess a broad range of prosocial skills.

Population

Third- through sixth-grade children.

Description

The SSRS – Student Elementary Form (SSRS-SEF) was developed as a component of the more comprehensive SSRS series. This series includes assessments of social behavior in children from preschool through high school and contains parent and teacher questionnaires for use across all age groups. The self-report (i.e., student) versions are not available for administration to children below the third grade, and do not assess problem behaviors.

The SSRS-SEF is a 34-item measure of social skills. The student version of the SSRS consists of four subscales: Cooperation, Assertion, Self-control, and Empathy. Items are rated on a 3-point scale (0 = *never*, 1 = *sometimes*, 2 = *very often*) according to how frequently the child engages in each behavior. Examples of items include "I use a nice tone of voice in classroom discussions," "I smile, wave, or nod at others," and "I listen to my friends when they talk about problems they are having."

Administration and scoring

Administration time may range from 15 to 30 min but will vary by children's age and ability level. The SSRS-SEF may be scored by hand or computer. The raw scores for each of the subscales are totaled. For each subscale, the sum total corresponds to a behavioral level which is noted on the summary page. The behavioral levels (fewer, average, more) describe the child's social skill performance in relation to same-aged peers. The subscale scores are then totaled, and the total score also corresponds to a behavioral level as described above. The total score is then converted into a standard score and percentile rank.

Psychometric properties

Norms. Psychometric properties of the SSRS-SEF were evaluated using a sample of 2,400 students in grades 3–6 for the elementary form. Gender distribution was approximately equal. Means and standard deviations for each age and gender category are provided in the manual.

Reliability. Based on the standardization sample, internal consistency coefficients for the SSRS-SEF were as follows: Cooperation (0.68), Assertion (0.51), Empathy (0.74), Self-Control (0.63), and Total (0.83). Test–retest reliability ranged from 0.52 to 0.68 across scales. A recent study by Diperna and Volpe (2006) also suggested acceptable internal consistency for the Total scale at 0.86 and subscale consistencies ranging from 0.56 to 0.72. Partial correlations were examined between Time 1 ratings and those 6 months later and revealed moderate correlations ranging from 0.45 to 0.58.

Validity. Factor analyses were conducted on the SSRS-SEF. The items on the elementary form had loadings in the range of 0.14–0.76. Diperna and Volpe (2006) report another estimate of the validity of the SSRS-SEF through its correlation with the teacher version of the SSRS and the Academic Competence Evaluation Scale. The Total Social Skills scores on the SSRS-SEF demonstrated moderate, positive associations (0.38) with the SSRS-Teacher

Social Skills Total Scale, and a moderate negative relationship (−0.36) with the SSTS-Teacher Problem Behavior Scale. There were also moderate positive relationships between teacher ratings on the ACES, ranging from 0.34 to 0.40.

To assess criterion-related validity, the SSRS-SEF was administered with the Youth Self-Report Form and the Piers-Harris Children's Self-Concept Scale, and scores were correlated in the expected directions.

Source

The SSRS can be obtained from AGS Publishing. They can be contacted through their web site, www.pearsonschool.com.

Cost

Due to the wide range of products within the SSRS series, a variety of packages are available, ranging in price from $21.99 to $999.99. For a complete listing of products, consult www.pearsonschool.com.

Alternative forms

The SSRS is available in a secondary form for older students in grades 7–12 (SSRS-Student Secondary Form). In addition, parallel teacher and parent forms of the SSRS are available for children in preschool through high school. Separate norms are also available for elementary students with and without disabilities.

CHILD PEER REPORT

Elizabeth J. Shepherd, Michelle S. Rivera, Lauren J. Holleb, and Alana M. Burns

Preschool Social Behavior Scale—Peer Report Form (PSBS-P)

Original citation

Crick, N. R., Casas, J. F., & Mosher, M. (1997). Relational and overt aggression in preschool. *Developmental Psychology, 33*, 579–588.

Purpose

To assess peer acceptance, peer rejection, and prosocial behaviors. This scale also measures relational and overt aggression.

Elizabeth J. Shepherd, Michelle S. Rivera, Lauren J. Holleb, and Alana M. Burns • Department of Psychology, 5742 Little Hall, University of Maine, Orono, ME 04469.

Population

Preschool children

Description

The PSBS-Peer Report form (PSBS-P) was developed based on a peer nomination measure developed in prior research to assess the social behavior of elementary school-aged children (Crick & Grotpeter, 1995). The PSBS-P is a 17-item measure of aggressive and prosocial behaviors. The PSBS-P consists of three subscales: prosocial behavior (4 items), relational aggression (7 items), and overt aggression (6 items), as well as a peer acceptance item, and a peer rejection item. Children are shown pictures of all classmates and instructed to nominate up to three children who fit each behavioral descriptor. The number of nominations children receive from peers are summed and standardized for each item.

Administration and scoring

Scores for each item are derived by summing the number of nominations a child receives from his/her peers, standardizing within the classroom, and collapsing across subscales. Cutoff scores for the PSBS-P are not provided.

Psychometric properties

Norms. Psychometric properties were derived from a sample of 65 preschool children from four classrooms, aged 3.5–5.5 years.

Reliability. Internal consistency coefficients (Cronbach's alpha) for the scales of the PSBS-P were 0.68 for the prosocial behavior scale, 0.71 for the relational aggression scale, and 0.77 for the overt aggression scale.

Validity. Principal components factor analysis with varimax rotation was conducted, and the three predicted factors were found to account for 57% of the variation in scores. The prosocial behavior scale accounted for 11% of the variation in scores. The four items on the prosocial behavior scale had factor loadings ranging from 0.62 to 0.80.

Source

Please contact Nicki Crick, Ph.D., Director, Institute of Child Development, University of Minnesota, 51 East River Road, Minneapolis, MN, 55455-0345. Her phone number is 612-625-8879, and her e-mail address is: crick001@umn.edu.

Cost

There is no cost for this measure.

Alternative forms

The PSBS is available in a teacher report form. In addition, the Children's Social Behavior Scale-Teacher Report form (CSBS-T) is available for use during elementary school, and a comparable peer nomination procedure developed in prior research with elementary school-aged children is available (Crick & Grotpeter, 1995).

Pupil Evaluation Inventory (PEI)

Original citation

Pekarik, E. G., Prinz, R. J., Liebart, D. E., Weintraub, S., & Neale, J. M. (1976). The Pupil Evaluation Inventory: A sociometric technique for assessing children's social behavior. *Journal of Abnormal Child Psychology, 4*, 83–97.

Purpose

To evaluate peer perceptions of aggressive behavior, withdrawn behavior, and prosocial behavior.

Population

First- through ninth-grade children.

Description

The Pupil Evaluation Inventory (PEI) is a peer rating measure of social behavior. Peer ratings of social behavior are an important indicator of childhood social adjustment given that the peer arena constitutes the majority of childhood social interaction. In addition, this method utilizes multiple raters who have the ability to make observations over an extended period of time (Pekarik et al., 1976). The PEI contains 35 items that yield three subscales: aggression, withdrawal, and likability.

Administration and scoring

The PEI can be administered in less than 30 min in a classroom setting. Students are provided with a matrix containing behavioral descriptors and the names of male or female classmates. Students are instructed to cross out their own name and to put an "X" under the names of all classmates they feel match each behavioral descriptor. In order to enable comparison of behavioral nominations across classes of differing sizes, the number of nominations for each child is converted to a percentage based on the number of raters.

Psychometric properties

Norms. The original sample consisted of 181 males and 171 females in grades one through nine who were rated by their classmates.

Reliability. Split-half reliability was calculated and yielded correlations above 0.70 across factors, raters, and grade and gender of children being rated. The one exception was that the split half reliability for the likability factor for boys in seventh through ninth grade was 0.59 when evaluated by male raters and 0.68 when evaluated by female raters. Correlations for the aggression factor were mostly over 0.90.

Interrater agreement was calculated for male and female raters for grades 1–3, 4–6, and 7–9 within each gender being rated. For males, interrater agreement ranged from 0.62 to 0.82 for grades 1–3, 0.62 to 0.92 for grades 4–6, and 0.25 to 0.90 for grades 7–9. For females, interrater agreement ranged from 0.61 to 0.75 for grades 1–3, 0.64 to 0.79 for grades 4–6, and 0.65 to 0.85 for grades 7–9.

In a subsample of two third- and two sixth-grade classes, test–retest reliability was assessed over a 2-week period. Correlations were calculated separately for males and females and ranged from 0.81 to 0.95 for the three factor scales.

Validity. A principal components analysis was conducted for the 35 items rated by male or female peers. Four factors were revealed that accounted for 65% of the variance; however, the fourth factor accounted for less than 4% of the variance and did not coalesce into a distinct category. Thus, only three factors were included: aggression, withdrawal, and likability which accounted for 37.8%, 15.2%, and 7.5% of the variance, respectively.

In the original sample, validity was also assessed by comparing peer ratings to self- and teacher ratings of the same behaviors. Correlations of teacher and peer factor scores were significant and ranged from 0.28 to 0.73. For the self and peer factor scores, correlations were not significant for the withdrawal factor for males in grades 6–9 and for the likability scale for females. All other self and peer factor score correlations were significant and ranged from 0.09 to 0.59.

Source

Pekarik, E. G., Prinz, R. J., Liebart, D. E., Weintraub, S., & Neale, J. M. (1976). The Pupil Evaluation Inventory: A sociometric technique for assessing children's social behavior. *Journal of Abnormal Child Psychology, 4*, 83–97.

Cost

There is no cost for this measure.

Alternative forms

A revised version of the Pupil Evaluation Inventory, the Pupil Evaluation Inventory-Revised (PEI-R; Pope, Mumma, & Bierman, 1991) is available. The PEI-R added items pertinent to behavioral characteristic of children with Attention Deficit Hyperactivity Disorder (ADHD).

CHILD RATINGS BY OTHER

Michelle S. Rivera, Molly Adrian, Jessica Fales, and Alana M. Burns

Achenbach System of Empirically Based Assessment – Child Behavior Checklist for Ages 6–18 (CBCL/6–18)

Original citation

Achenbach, T. M., & Rescorla, L. A. (2001). *Manual for the ASEBA school-age forms and profiles.* Burlington, VT: University of Vermont, Research Center for Children, Youth, & Families.

Michelle S. Rivera, Molly Adrian, Jessica Fales, and Alana M. Burns • Department of Psychology, 5742 Little Hall, University of Maine, Orono, ME 04469.

Purpose

To assess areas of competence and behavior problems in children and adolescents.

Population

Children and adolescents ages 6–18.

Description

The CBCL/6–18 is the revised version of the Child Behavior Checklist for Ages 4–18 (Achenbach, 1991b; Achenbach & Edelbrock, 1986) and is a widely used measure in child psychopathology that differentiates clinically referred children from nonreferred children in research and clinical settings. The CBCL/6–18 is a parent-completed broad questionnaire to assess competencies, adaptive functioning and problems in social, emotional, and behavioral realms. The questionnaire contains 118 items and raters choose from a 3-point Likert-type scale ranging from 0 (*not true*) to 2 (*often true*). The CBCL/6–18 yields profiles including six DSM-oriented scales, three competence scales, a Total Competence scale, eight cross-informant syndromes, and Internalizing, Externalizing, and Total Problem scales. The CBCL/6–18 also includes two scales that specifically address social skills and/or competence: the Social Competence scale and Social Problems scale.

Administration and scoring

Administration of the CBCL/6–18 takes approximately 15–20 min, and the questionnaire can be self-administered or conducted through an interview. Scoring is completed through a computer software program and can also be hand scored. Interpretations of scores are based on a same-age, same-gender norm group. Computer software provides profiles, cross-informant comparisons, and narrative reports of results.

Psychometric properties

Norms. The normative sample for the CBCL/6–18 consisted of 1,753 children and adolescents aged 6–18 in 48 states across the United States.

Reliability. With regard to internal consistency, coefficient alpha estimates were found to be 0.68 for the Social Competence scale and 0.82 for the Social Problems scale. Test–retest reliability over an 8-day interval was 0.93 for the Social Competence scale and 0.90 for the Social Problems scale. Cross-informant agreement for these scales were 0.71 and 0.77, respectively. With a sample of 75 parents, the stability of the scores was also assessed at 12 and 24 month increments. Stability for the Social Competence scale was 0.76 at 12 months; 0.43 at 24 months; and for the Social Problems scale it was 0.69 at 12 months; 0.73 at 24 months.

Validity. The content validity of the CBCL/6–18 is based on research and practical experience, including literature searches, consultation with mental health professionals, educators, parents, youth, and teachers. One estimate of the criterion-related validity of the CBCL/6–18 is through structural equation modeling. The effects of referral status showed significant associations with competence and adaptive scales. The Social Competence scale accounted for 27% of the variance, whereas the Social Problems scale accounted for 25%. With respect to construct validity, the Social Problems scale significantly correlated with the Withdrawal scale of the Behavior Assessment System for Children (0.57 for mothers and 0.54 for fathers).

Intercorrelations among the items provided in the manual offer evidence of the CBCL/6–18's factorial validity.

Source

Contact Achenbach System of Empirically Based Assessment, Research Center for Children, Youth and Families by mail at 1 South Prospect St., St. Joseph's Wing, Room 3207, Burlington, VT, 05401, by phone at (802) 656-5130, by email at mail@ASEBA.org, or on their web site, www.ASEBA.org.

Cost

The ASEBA school-age manual and profiles can be purchased for $40. A package of 50 CBCL/6–18 forms can be purchased for $25 and a hand-scoring template can be purchased for $7. In addition, a school-age computer-scoring starter kit can be purchased for $395.

Alternative forms

The CBCL/6–18 has companion teacher (Teacher's Report Form; TRF) and child (Youth Self Report; YSR) report forms. In addition, a preschool version is available for children aged 1–1/2 to 5. ASEBA forms are also translated into more than 80 languages.

Achenbach System of Empirically Based Assessment—Teacher's Report Form Ages 6–18 (TRF/6–18)

Original citation

Achenbach, T. M., & Rescorla, L. A. (2001). *Manual for the ASEBA school-age forms and profiles.* Burlington, VT: University of Vermont, Research Center for Children, Youth, & Families.

Purpose

To assess teacher-reported areas of competence and behavior problems in children and adolescents.

Population

Children and adolescents aged 6–18.

Description

The TRF/6–18 is the most current version of the Teacher's Report Form (Achenbach 1991; Achenbach & Edelbrock, 1983) and is a widely used measure in child psychopathology that differentiates clinically referred children from nonreferred children in research and clinical settings. The TRF/6–18 is a teacher-completed broad questionnaire to assess competencies, adaptive functioning and problems in social, emotional, and behavioral realms. The questionnaire contains 118 items, including 25 items assessing school problem behaviors. Items are rated on a 3-point Likert-type scale ranging from 0 (*not true*) to 2 (*very*

true). Profiles of the TRF/6–18 include scales for academic performance, adaptive functioning, eight cross-informant syndrome scales, six DSM-oriented scales, and Internalizing, Externalizing, and Total Problem scales. TRF/6–18 profiles also yield separate scores for Inattention and Hyperactivity-Impulsivity and two scales that specifically address social skill and/or competence: the Social Competence scale and Social Problems scale.

Administration and scoring

Administration takes approximately 15–20 min and the questionnaire can be self-administered or conducted through an interview. Scoring is completed through a computer software program and can also be hand scored. Scores are based on a same-age, same-gender norm group. Computer software provides profiles, cross-informant comparisons, and narrative reports of results.

Psychometric properties

Norms. The normative sample for the TRF/6–18 consisted of 2,319 children and adolescents aged 6–18 in 48 states across the United States.

Reliability. With regard to internal consistency, the coefficient alpha estimate was 0.82 for the Social Problems scale. The manual does not report internal consistency coefficient alphas for the Social Competence scale. Test–retest reliability for a 16-day interval was 0.93 for the Social Competence scale and 0.95 for the Social Problems scale. Using a sample of 22 teachers, the stability of scores was also assessed at 2- and 4-month increments. These reliabilities were 0.54 and 0.38, respectively.

Validity. The content validity of the TRF/6–18 is based on research and practical experience including literature searches, consultation with mental health professionals, educators, parents, youth, and teachers. One estimate of the criterion-related validity of the TRF/6–18 is through structural equation modeling (SEM). SEM was used to regress the raw scores of problem and adaptive scales onto independent variables. Referral status was significantly associated with the Social Competence and Social Problem scales. The Social Problems scale accounted for 18% of the variance. Factor analysis was also used as evidence of validity. The factor loadings for the Social Problems scales were all significant at the $p < .01$ level and correlations ranged from 0.23 to 0.92. Regarding construct validity, the Social Problems scale significantly correlated with the Withdrawal Scale of the Behavior Assessment System for Children (0.53). The manual does not provide figures for the Social Competence scale.

Source

Contact Achenbach System of Empirically Based Assessment, Research Center for Children, Youth and Families by mail at 1 South Prospect St., St. Joseph's Wing, Room 3207, Burlington, VT, 05401, by phone at (802) 656-5130, by email at mail@ASEBA.org, or on their web site, www.ASEBA.org.

Cost

The ASEBA school-age manual and profiles can be purchased for $40. A package of 50 CBCL/6–18 forms costs $25 and a hand-scoring template costs $7. In addition, a school-age computer-scoring starter kit can be purchased for $395.

Alternative forms

The TRF/6–18 has companion parent (Child Behavior Checklist, CBCL) and child (Youth Self Report, YSR) report forms. In addition, a preschool version is available for children age 1–1/2 to 5. ASEBA forms are also available in more than 80 languages.

Behavior Assessment System For Children – Second Edition (BASC-2) Social Skills Subscale: Parent Rating Scales

Original citation

Reynolds, C. R., & Kamphaus, R. W. (2004). *BASC-2: Behavior Assessment System for Children, Second Edition* [Manual]. Circle Pines, MN: AGS Publishing.

Purpose

To facilitate identification and differential diagnosis of childhood behavioral and emotional problems**.**

Population

Children in preschool (ages 2–5) and elementary school (ages 6–11).

Description

The Parent Rating Scales-Preschool Form (PRS-P) and Child Form (PRS-C) are part of a comprehensive battery used to assess a child's problematic and adaptive behaviors and emotions. The PRS-P form is made up of 134 items and the PRS-C form is made up of 160 items that describe observable behaviors that typically occur in the home or community setting. The measure yields four composite scores: Internalizing Problems (anxiety, depression, and somatization), Externalizing Problems (aggression, conduct problems, and hyperactivity), Adaptive Skills (activities of daily living, adaptability, leadership, functional communication skills, and social skills), and the Behavioral Symptoms Index (a single factor combining hyperactivity, aggression, anxiety, depression, attention problems, and atypicality scales). The PRS Social Skills subscale consists of items that assess social adaptation and interpersonal skills, such as complimenting others, offering assistance, and saying "please."

This version represents the third revision of the Behavior Assessment System for Children, the original having been developed by Reynolds and Kamphaus (1992) for children aged 4–18. In 1998, an updated version of the BASC, the Behavior Assessment System for Children – Revised (BASC-R; Reynolds & Kamphaus, 1998), was published to include additional preschool norms for children aged 2 years, 6 months to 3 years, and 11 months. The BASC-2 includes enhanced item content, improved computer software, expanded age ranges, new norms based on current census data, and four new scales (Functional Communication, Activities of Daily Living, Attention Problems, Hyperactivity).

Administration and scoring

This form takes approximately 20 min to complete. Parents rate on a 4-point scale ranging from 1 (*Never*) to 4 (*Almost Always*) the frequency with which the child engages in a

particular behavior. The BASC-2 can be hand-scored or scored by computer. Normative data based on the general population are available by gender and age. Clinical norms are also available. *T*-scores and percentile ranks are provided for each composite and scale score, and can be used to identify the child's strengths and weaknesses. In addition, there is a validity index.

Psychometric properties

Norms. The general normative samples for standardization of the PRS-P consisted of 1,200 children aged 2–5 years and of the PRS-C consisted of 1,800 children aged 6–11 years. Normative data were collected across 40 states and 257 cities.

Reliability. In the general normative sample, internal consistency (Cronbach's alpha) for the subscales of the PRS-P ranged from 0.70 to 0.88 and for the PRS-C ranged from 0.73 to 0.88. Internal consistency for the composite scales of the PRS-P ranged from 0.85 to 0.93 and of the PRS-C ranged from 0.90 to 0.95. The mean Cronbach's alpha for the PRS-P Social Skills subscale was 0.88 for children 2–3 years old and 0.85 for children 4–5 years old. The mean Cronbach's alpha for the PRS-C Social Skills subscale was 0.84 for children 6–7 years old and 0.87 for children 8–11 years old. Test–retest reliability (ranging between 8 and 70 days) in the norm sample ranged from 0.72 to 0.85 for the PRS-P subscales and 0.82 to 0.84 for the PRS-C subscales. Test–retest reliability for the composite scales ranged from 0.81 to 0.86 for the PRS-P and 0.78 to 0.92 for the PRS-C. Test–retest reliability for the PRS-P Social Skills subscale was 0.72 and for the PRS-C Social Skills subscale was 0.82.

Validity. The correlation between the BASC-2 PRS-C Social Skills subscale and Conners' Parent Rating Scale-Revised Social Problems subscale was –0.37. The correlation between the BASC-2 PRS-P Social Skills subscale and the BASC Social Skills subscale was 0.94 and for the PRS-C was 0.94.

Source

Contact AGS Publishing/Pearson Assessments at P.O. Box 1416, Minneapolis, MN 55440 or at http://www.pearsonassessments.com.

Cost

The BASC-2 manual can be purchased for $89.00, and an examination set is available for $124.00. Hand-scored forms cost $33.50 for a package of 25 forms and computer-scored forms cost $28.00 for a package of 25 forms. ASSIST computer scoring software can be purchased for $259.00. Due to the wide range of products within the BASC-2 series, a variety of additional packages are available, ranging in price from $28.00 to $1,230.00. For a complete listing of products, consult www.pearsonassessments.com.

Alternative forms

The BASC-2 PRS is also available in a form for adolescents (ages 12–21). In addition, parallel teacher forms, and Spanish language versions are available.

Behavior Assessment System for Children – Second Edition (BASC-2) Social Skills Subscale: Teacher Rating Scales

Original citation

Reynolds, C. R., & Kamphaus, R. W. (2004). *BASC-2: Behavior Assessment System for Children, Second Edition* [Manual]. Circle Pines, MN: AGS Publishing.

Purpose

To facilitate identification and differential diagnosis of childhood behavioral and emotional problems**.**

Population

Children in preschool (ages 2–5) and elementary school (ages 6–11).

Description

The Teacher Rating Scales-Preschool Form (TRS-P) and Child Form (TRS-C) are part of a comprehensive battery used to assess a child's problematic and adaptive behaviors and emotions. The TRS-P is made up of 109 items and the TRS-C is made up of 139 items that describe observable behaviors that typically occur in the school environment. Similar to the parent version, the teacher version yields composite scores for Internalizing Problems, Externalizing Problems, Adaptive Skills, and a Behavioral Symptoms Index. The TRS-C also yields a composite score for School Problems, which includes items assessing attention problems and learning problems. The TRS Social Skills subscale consists of items that assess social adaptation and interpersonal skills, such as complimenting others, offering assistance, and saying "please."

This version represents the third revision of the Behavior Assessment System for Children, the original having been developed by Reynolds and Kamphaus (1992) for children aged 4–18. In 1998, an updated version of the BASC, the Behavior Assessment System for Children – Revised (BASC-R; Reynolds & Kamphaus, 1998), was published to include additional preschool norms for children aged 2 years 6 months to 3 years 11 months. The BASC-2 includes enhanced item content, improved computer software, expanded age ranges, new norms based on current census data, and four new scales (Functional Communication, Activities of Daily Living, Attention Problems, Hyperactivity).

Administration and scoring

This form takes approximately 20 min to complete. Teachers rate on a 4-point scale ranging from 1 (*Never*) to 4 (*Almost Always*) the frequency with which the child engages in a particular behavior. The BASC-2 can be hand-scored or scored by computer. Normative data based on the general population are available by gender and age. Clinical norms are also available. *T*-scores and percentile ranks are provided for each composite and scale score, and can be used to identify the child's strengths and weaknesses. In addition, there is a validity index.

Psychometric properties

Norms. The general normative samples for standardization of the TRS-P consisted of 1,050 children aged 2–5 years and of the TRS-C consisted of 1,800 children aged 6–11 years. Normative data were collected across 40 states and 257 cities.

Reliability. In the general normative sample, internal consistency (Cronbach's alpha) for the subscales of the TRS-P ranged from 0.75 to 0.93 and for the TRS-C ranged from 0.82 to 0.95. Internal consistency for the composite scales of the TRS-P ranged from 0.87 to 0.96 and of the TRS-C ranged from 0.88 to 0.97. The mean Cronbach's alpha for the TRS-C Social Skills subscale was 0.88 for children 6–7 years old and 0.91 for children 8–11 years old. Test–retest reliability (ranging between 8 and 70 days) in the norm sample ranged from 0.72 to 0.87 for the TRS-P subscales and 0.74 to 0.90 for the TRS-C subscales. Test–retest reliability for the composite scales ranged from 0.84 to 0.87 for the TRS-P and 0.84 to 0.93 for the TRS-C. Test–retest reliability for the TRS-C Social Skills subscale was 0.88.

Validity. The correlation between the BASC-2 TRS-C Social Skills subscale and Conners' Teacher Rating Scale- Revised Social Problems subscale was –0.48. The correlation between the BASC-2 TRS-P Social Skills subscale and the BASC Social Skills subscale was 0.95 and for the TRS-C was 0.97.

Source

Contact AGS Publishing/Pearson Assessments at P.O. Box 1416, Minneapolis, MN 55440 or at http://www.pearsonassessments.com.

Cost

The BASC-2 manual can be purchased for $89.00 and an examination set is available for $124.00. Hand-scored forms cost $33.50 for a package of 25 forms and computer-scored forms cost $28.00 for a package of 25 forms. ASSIST computer scoring software can be purchased for $259.00. Due to the wide range of products within the BASC-2 series, a variety of additional packages are available, ranging in price from $28.00 to $1,230.00. For a complete listing of products, consult www.pearsonassessments.com.

Alternative forms

The BASC-2 TRS is also available in a form for adolescents (aged 12–21). In addition, there are parallel parent forms, as well as Spanish language versions.

Child Behavior Scale (CBS)

Original citation

Ladd, G. W., & Profilet, S. M. (1996). The Child Behavior Scale: A teacher-report measure of young children's aggressive, withdrawn, and prosocial behaviors. *Developmental Psychology, 32*, 1008–1024.

Purpose

To assess social behavior of children with peers (e.g., aggression, prosocial behavior), hyperactivity, and anxiety.

Population

Children 4–6 years old (has also been used with children in middle childhood).

Description

Several items from the CBS are based on items from the Children's Behavior Questionnaire (Rutter, 1967) and the Preschool Behavior Questionnaire (Behar & Stringfield, 1974). The Child Behavior Scale contains 59 items that are rated by the child's teacher. Items comprise six subscales: aggressive with peers (7 items), prosocial with peers (7 items), excluded by peers (7 items), asocial with peers (6 items), hyperactive-distractible (4 items), and anxious-fearful (4 items). Teachers are instructed to rate the applicability of items to the child with special consideration to behavior in peer contexts. Each item is rated on a 3-point scale (1 = *doesn't apply*, 2 = *applies sometimes*, and 3 = *certainly applies*).

Administration and scoring

The questionnaire was originally designed to be completed by a child's teacher but can also be completed by parents or teacher's aides. The questionnaire is hand-scored and items for each subscale are summed and averaged to obtain subscale scores.

Psychometric properties

Norms. Psychometric data are based on a sample of two cohorts of kindergarten children ($n = 412$) from communities in the Midwestern United States. The first cohort was recruited from 15 classrooms (108 boys, 98 girls), and the second cohort was recruited 1 year later from 16 classrooms (101 boys, 105 girls). Both cohorts are similar in terms of ethnicity and socioeconomic status.

Reliability. Internal consistency, estimated by Cronbach's alphas and provided separately for each cohort, was 0.89 and 0.92 for the aggressive with peers subscale, 0.91 and 0.92 for the prosocial with peers subscale, 0.87 and 0.89 for the asocial with peers subscale, 0.93 and 0.96 for the excluded by peers subscale, 0.77 and 0.79 for the anxious-fearful subscale, and 0.88 and 0.93 for the hyperactive-distractible factor.

Test–retest reliabilities over a 4-month period were assessed within each cohort. Correlations were 0.69 and 0.71 for the aggressive with peers subscale, 0.62 and 0.65 for the prosocial with peers subscale, 0.54 and 0.59 for the asocial with peers subscale, 0.67 and 0.72 for the excluded by peers subscale, 0.59 and 0.68 for the anxious-fearful subscale, and 0.82 and 0.83 for the hyperactive-distractible factor.

Validity. Based on a principal components factor analysis, eight factors emerged accounting for a total of 67.1% of the variance in the first cohort; however, only six of these factors were interpretable. The six subscales were created and a secondary principal-components factor analysis was conducted which produced six factors accounting for 70.3% and 70.2% of the variance in cohorts 1 and 2, respectively. Factor loadings ranged from 0.57 to 0.89 for the aggressive with peers factor, from 0.44 to 0.92 for the prosocial with peers factor, from 0.43 to 0.93 for the asocial with peers factor, from 0.67 to 90 for the excluded by

peers factor, from 0.63 to 0.84 for the anxious-fearful factor, and from 0.68 to 0.91 for the hyperactive-distractible factor.

Construct validity was assessed by examining correlations between subscales of the CBS, observations of classroom behaviors, and subscales of the Child Behavior Profile – Teacher Report Form (CBP-TRF). These correlations were examined within two cohorts of children, but only significant correlations are presented below. When significant correlations were found in both cohorts, both statistics are presented. The aggressive with peers subscale was significantly associated with observed aggressive interactions (0.26, 0.28); observational ratings of aggression (0.39), hyperactivity-distractibility (0.39), dominating behavior (0.30), and prosocial behavior (−0.22); and CBP-TRF aggressive behavior (0.71, 0.76), social problems (0.30, 0.37), and attention problems (0.38, 0.48). The prosocial with peers subscale was associated with observed aggressive interactions (−0.19, −0.16); observational ratings of aggression (−0.19), peer exclusion (−0.14), hyperactivity-distractibility (−0.21), and prosocial behavior (0.23); and CBP-TRF aggressive behavior (−0.45, −0.44), withdrawn behavior (−0.35, −0.31), social problems (−0.32, −0.35), and attention problems (−0.46, −0.55). The asocial with peers subscale was correlated with observed positive interactions (−0.24, −0.21) and nonsocial behaviors (0.30, 0.19); observational ratings of dominating behavior (−0.15), asocial behavior (0.23), anxiousness-fearfulness (0.29), and exclusion by peers (0.30); and CBP-TRF withdrawn behavior (0.64, 0.50), anxious-depressed (0.28, 40), social problems (0.40, 0.48), and attention problems (0.37, 0.30) subscales. The excluded by peers subscale was associated with observed positive interactions (−0.22, −0.19) and nonsocial behavior (0.17, 0.15); observational ratings of prosocial behavior (−0.16), asocial behavior (0.18), anxiousness-fearfulness (0.20), exclusion by peers (0.45), hyperactivity-distractibility (0.23), and victimization (0.30); CBT-TRF aggressive behavior (0.44, 0.44), withdrawn behavior (0.55, 0.43), anxious-depressed (0.22, 24), social problems (0.63, 0.63), and attention problems (0.66, 0.54) subscales.

Source

Please contact Gary W. Ladd, Ph.D. at the School of Social and Family Dynamics, P.O. Box 3701, Arizona State University, Tempe, AZ 85287-3701.

Cost

Contact the author for additional information.

Children's Social Behavior Scale – Teacher Form (CSBS-T)

Original citation

Crick, N. R. (1996). The role of overt aggression, relational aggression, and prosocial behavior in the prediction of children's future social adjustment. *Child Development, 67*, 2317–2327.

Purpose

To assess peer acceptance, peer rejection, and prosocial behaviors. This scale also assesses relational and overt aggression.

Population

Elementary school children.

Description

The CSBS-T is comprised of 15 items that measure children's social behaviors. Items are rated by the child's teacher based on frequency of occurrence using a 5-point scale (1 = *this is never true of this child* to 5 = *this is almost always true of this child*). The CSBS-T consists of three scales (prosocial behavior, relational aggression, and overt aggression) and two items assessing peer acceptance (same-sex and other-sex peer acceptance). The prosocial behavior and overt aggression subscales each includes four items, and the relational aggression subscale is comprised of seven items.

Administration and scoring

The CSBS-T takes approximately 15 min to complete and is hand-scored. To derive scale scores, all items for a particular scale are summed.

Psychometric properties

Norms. Psychometric properties were based on a sample of 245 third- through sixth-grade children.

Reliability. Internal consistency coefficients (Cronbach's alpha) were 0.93 for the prosocial behavior subscale, 0.94 for the relational aggression subscale, and 0.94 for the overt aggression subscale.

Validity. Factor analysis of the teacher form yielded the three predicted factors (relational aggression, overt aggression, and prosocial behavior). The relational aggression, overt aggression, and prosocial behavior factors accounted for 62.7%, 12.3%, and 6.4% of the variance, respectively.

Scores on the subscales of the teacher form were significantly correlated with parallel subscales from the Children's Social Behavior Scale – Peer Form, which is a peer nomination measures. The relational aggression, overt aggression, and prosocial behavior subscales all correlated significantly in expected directions with the peer measure for both boys and girls. Peer and teacher ratings of social acceptance were also significantly correlated for both boys and girls.

Source

Contact Nicki Crick, Ph.D., Director, Institute of Child Development, University of Minnesota, 51 East River Road, Minneapolis, MN, 55455-0345.

Cost

There is no cost for this measure.

Alternative forms

The CSBS is also available in a Peer Report form. In addition, the Preschool Social Behavior Scale, which was based on this measure, is available in Peer and Teacher Report forms for preschool age children.

Early Screening Project

Original citation

Feil, E. G., Severson, H. H., & Walker, H. M. (1998). Screening for emotional and behavioral delays: Early Screening Project. *Journal of Early Intervention, 21*, 252–266.

Purpose

To identify children experiencing adjustment problems in a preschool classroom.

Population

Preschool children.

Description

The Early Screening Project was adapted from the Systematic Screening for Behavior Disorders (SSBD). It is a multiple-gated screening instrument that includes three stages. During stage one, teachers rank children in terms of externalizing (i.e., disruptive acting out) and internalizing behaviors (i.e., social isolation and withdrawal) and identify five children who fit each of these categories. In stage two, teachers rate the six highest ranked children. Assessment in stage three is composed of direct observations and parent questionnaires for those children who exceed stage two criteria.

The teacher rating questionnaire in stage two includes the Critical Events Index, Aggressive Behavior Scale, Social Interaction scale, Adaptive Behavior Scale, and Maladaptive Behavior Scale. The Critical Events Index includes items such as "exhibits painful shyness" and "steals." It is composed of 16 items that are rated as either occurring or not occurring. The Aggressive Behavior Scale has nine items (e.g., "has tantrums"). The items are rated based on frequency on a scale from 1 (*never*) to 5 (*frequently*). The Social Interaction Scale has eight items (e.g., "engages in long conversations (more than 30 s)" and "verbally responds to a peer's initiation"). It is rated on a scale from 1 (*Not descriptive or true*) to 7 (*Very descriptive or true*). The Adaptive Behavior Scale has eight items (e.g., "follows established classroom routines" and "gains other children's attention in an appropriate manner"). The Maladaptive Behavior Scale has nine items (e.g., "refuses to participate in games or activities with other children during free/unstructured play" and "responds inappropriately when other children try to interact socially with her/him"). Both the Adaptive and Maladaptive Behavior Scales are rated on scales of 1 (*never*) to 5 (*a lot*).

The parent questionnaire used in stage three is composed of 12 behavioral descriptors. Parents rate the frequency of occurrence as "*Always," "Frequently," "Sometimes,"* or "*Never.*" Example items include: "If given a choice, does your child choose to play with other children?" "Does your child follow your instructions and directions?" and "Does your child suddenly cry for no reason?" The items are based on those in the teacher questionnaire.

Administration and scoring

Rankings and questionnaires in stages one and two are completed by the child's teacher and can be completed for an entire classroom in less than an hour and a half. In the third stage, the questionnaire is completed by the child's parent.

Psychometric properties

Norms. The presented psychometric information is based on a sample of 105 preschool children. Information is available on which scores place children in the categories of "At Risk," "High Risk," or "Extreme Risk" for each scale of the teacher questionnaire. These categories correspond to scores greater than 1, 1.5, and 2 standard deviations from the mean, respectively.

Reliability. Six month test–retest reliability was assessed for scales on the teacher questionnaire. Correlations were $r = 0.74$ for the Critical Events Index, $r = 0.90$ for the Aggressive Behavior Scale, $r = 0.75$ for the Adaptive Behavior Scale, and $r = 0.80$ for the Maladaptive Behavior Scale.

Validity. For the teacher questionnaire, agreement with teacher rating scales of similar constructs was assessed. Correlations, all significant, were $r = 0.79$ for the Behar Preschool Behavior Questionnaire, $r = 0.82$ for the Conners' Teacher Rating Scale Hyperactive Subscale, and $r = 0.61$ for the Conners' Teacher Rating Scale Inattentive Subscale.

Source

Contact Sopris West by mail at 1140 Boston Ave., Longmont, Colorado, 80501, by phone at 1-303-651-2829, or by fax at 1-303-776-5934.

Cost

The $95 cost includes the User Manual, reproducibles, Instrument Packet, Social Observation Training Video, and stopwatch.

Matson Evaluation of Social Skills with Youngsters (MESSY) – Teacher Report form

Original citation

Matson, J. L., Rotari, A. F., & Helsel, W. J. (1983). Development of a rating scale to measure social skills in children: The Matson Evaluation of Social Skills with Youngsters (MESSY). *Behavior Research and Therapy, 21*, 335–340.

Purpose

To assess the social behavior of children and identify social deficits and excesses.

Population

Children and adolescents aged 4–18.

Description

The Teacher Report Form of the MESSY is a 64-item rating scale that includes a wide range of verbal and nonverbal behaviors. The Teacher Report Form of the MESSY consists of two factors: Factor 1, Inappropriate Assertiveness/Impulsiveness and Factor 2, Appropriate Social Skills. Items that comprise Factor 1 (i.e., Inappropriate Assertiveness/Impulsiveness) include "Picks on people to make them angry," "Always wants to be first," and "Tries to get others to do what he/she wants." Items that comprise Factor 2 (i.e., Appropriate Social Skills) include "Helps a friend who is hurt," "Works well on a team," and "Feels sorry when he/she hurts others."

Administration and scoring

Administration of the MESSY takes approximately 15 min. Each item is rated using a 5-point Likert-type scale from 1 (*not at all*) to 5 (*very much*). Scoring the MESSY takes about 5 min, and factor scores are derived.

Psychometric properties

Norms. Factor analyses determining the factor structure of the MESSY were completed using data obtained in a sample of 744 children attending urban Catholic and public schools in a Midwestern state. The factor analyses specifically determining the factor structure of the Teacher Report Forms were based on 322 of the 744 children, ages 4–15 with 176 males and 146 females.

Factor scores are considered "problematic" if they are one standard deviation below the normative mean and "very problematic" if they are two or more standard deviations below the mean.

Reliability. Internal consistency of the MESSY Teacher Report has been examined with populations of visually and hearing impaired children. In a sample of 75 visually impaired children and youth, the coefficient alpha was 0.93 for inter-item reliability and the Guttman and Spearman-Brown formulas for split half reliability were 0.87 and 0.88, respectively (Matson, Heinze, Helsel, Kapperman, & Rotari, 1986). In a sample of 96 hearing impaired children, the coefficient alpha was 0.95 for inter-item reliability and the Guttman and Spearman-Brown formulas for split half reliability were 0.81 and 0.88, respectively (Matson, Macklin, & Helsel, 1985).

Validity. Factor analyses produced two factors for the Teacher Report Form, which significantly differed by age group. First-order Varimax loadings on the MESSY for the Teacher Report Form can be viewed in the original citation. In a sample of 17 autistic children and 17 nonautistic children, significant differences were found between Factor 1 and Factor 2 of the Teacher Report for the autistic group and between groups (Matson, Compton, & Sevin, 1991).

Source

Contact IDS Publishing Corporation by mail at P.O. Box 389, Worthington, Ohio, 43085, by phone at (614) 885-2323, by email at sales@idspublishing.com, or on their web site, at www.idspublishing.com.

Cost

The cost of $85 includes the manual, 25 Teacher Forms, 25 Student Self-Report Forms, and 25 Subject Scoring Forms. The optional unlimited use of the MESSY scoring software, which is PC compatible, costs $99. A sample copy of the MESSY is $8.

Alternative forms

The MESSY has been adapted for different cultures and translated into different languages. Translations are available in Chinese, Spanish, and Portuguese.

Personality Inventory for Children (PIC) – Second Edition

Original citation

Wirt, R. D., Lachar, D., Klinedinst, J. E., Seat, P. D., & Broen, W. E. (2001). *Multidimensional evaluation of child personality: A manual for the Personality Inventory for Children – Second Edition.* Los Angeles: Western Psychological Services.

Purpose

To assess behavioral, emotional, cognitive, and interpersonal adjustment of children and adolescents.

Population

Children and adolescents aged 5–19.

Description

Now in its second edition, the Personality Inventory for Children (PIC-2) is a multidimensional 275-item parent rating scale. The second revision of the PIC has retained its central purpose, administration and scoring procedures, and response format, but has a revised structure. Revisions to the PIC include changes in the number of items, content of the items, names of scales, and general organization. The PIC-2 is comprised of three response validity scales (Inconsistency, Dissimulation, Defensiveness), nine adjustment scales (Cognitive Impairment, Family Dysfunction, Psychological Discomfort, Impulsivity and Distractibility, Reality Distortion, Social Withdrawal, Delinquency, Somatic Concern, Social Skill Deficits), and 21 subscales (e.g., Developmental Delay, Isolation, Anxiety). The Social Skill Deficits adjustment scale consists of two subscales: Limited Peer Status and Conflict with Peers. The PIC-2 also includes the Behavioral Summary Profile, an abbreviated assessment profile consisting of 96-items with eight shortened scales (e.g., Social Withdrawal-Short, Social Skill Deficits-Short) and four scale composites (Externalizing, Internalizing, Social Adjustment, Total Score). The reading level of the PIC-2 has also been changed to a fourth-grade level.

Administration and scoring

The standard form of PIC-2 takes approximately 40 min to complete, and the Behavioral Summary takes approximately 15 min to complete. Each item is rated as true or false for a

particular child. Hand scoring of the PIC-2 is completed with the use of templates that are to be placed directly over the response sheet to sum all raw scores. Gender specific profile sheets provide corresponding T scores for the adjustment scales. The composite scores and Total score of the Behavioral Summary are derived through additional calculations. The electronic Autoscore[TM] Form can assist in scoring procedures.

Psychometric properties

Norms. The PIC-2 was standardized on a sample of 2,306 parents of girls ($n = 1{,}208$) and boys ($n = 1{,}098$) in kindergarten through 12th grade from rural, suburban, and urban areas across four major regions of the United States, with 1,551 parents in the clinical referred sample. The manual provides norms separated by gender but not age.

Reliability. Internal consistency of the PIC-2 was examined using Cronbach's coefficient alpha. The PIC-2 adjustment scales ranged from 0.75 to 0.91 in the standardization sample and 0.81 to 0.95 in the clinic-referred sample. The PIC-2 subscales had a median coefficient of 0.73 for the standardization sample and 0.80 for the clinic-referred sample. Test–retest reliability for the PIC-2 subscales was found to range from 0.82 to 0.92. In addition, inter-rater reliability was evaluated in 60 children from the standardized sample and 65 children from the clinic-referred sample. Mother and father agreement rates were found to have median coefficients of 0.68 or higher.

Validity. Item-to-scale correlations were used to determine appropriate item placement on the adjustment scales, and evidence for continuity between the PIC-2 and the PIC-R was supported by examining intercorrelations between the scales of the two versions. Factor analyses identified the subscales for the PIC-2 adjustment scales. Item content of the PIC-2 scales is nonoverlapping, with the exception of 16 items that were allowed to be included in two or three scales.

Source

Contact Western Psychological Services by mail at 12031 Wilshire Blvd., Los Angeles, CA 90025-1251, by phone at (800) 648-8857, by fax at (310) 478-7838, by email at help@wpspublish.com, or on the web site at www.wpspublish.com.

Cost

A complete kit includes the manual, two reusable administration booklets, 50 answer sheets, one set of scoring templates, 25 Behavioral Summary Autoscore[TM] Forms, 50 Standard Form Profile Sheets, 25 Behavioral Summary Profile Sheets, and 50 Critical Items Summary Sheets and costs $203.50. Additional costs for scoring and interpretation disks and CDs range from $88.00 to $329.00.

Alternative forms

Spanish translation available.

Preschool Behavior Questionnaire (PBQ)

Original citation

Behar, L., & Stringfield, S. (1974). *Manual for the Preschool Behavior Questionnaire*. Durham, NC: Lenore Behar, PhD.

Purpose

To identify behaviors that mark potential emotional-behavioral problems in preschoolers.

Population

Children aged 3–6.

Description

The PBQ is a modification of the 26-item Children's Behavior Questionnaire (CBQ; Rutter, 1967) and consists of 30 items rated by teachers and child-care professionals assessing the behaviors of preschool children in the context of their peer group. Twenty items of the PBQ were taken from the CBQ, and 10 items were added after consulting with experienced preschool teachers and reviewing other existing preschool scales. The Total score yielded from the PBQ reflects the overall level of a preschool child's social and emotional adjustment. Three subscale scores were derived from factor analyses: Hostile/Aggressive (H/A), Anxious/Fearful (A/F), and Hyperactive/Distractible (H/D). The PBQ can also be used as a pre- and post-measure to assess changes in children's behavior over a period of at least 3 months.

Administration and scoring

Administration takes approximately 5–10 min. Items are rated using a 3-point scaling system. The rater is asked to check if an item "Doesn't Apply" for zero points, "Applies Sometimes" for one point, or "Frequently Applies" for two points. Scoring takes about 5 min with the use of the score sheet. The Total score is derived by adding the points of all items. The H/A, A/F, and H/D subscale scores are all derived by adding the points of specified items. The score sheet provides a table to convert the Total and subscale scores into percentile ranks. A percentile rank above the 90th percentile indicates that the child's behavior is "out of the ordinary" and may need further examination. The three subscale scores provide further direction if examination is warranted.

Psychometric properties

Norms. The PBQ was standardized on a sample of 469 children with no emotional or behavioral disturbances at seven preschool sites in two states and a sample of 102 children with emotional disturbances at fifteen preschools across the United States. Means and standard deviations of each group are presented in the manual.

Reliability. Interrater reliability coefficients based on ratings provided by preschool teachers and teachers' aides was found to be 0.84 for the Total score, 0.81 for the H/A subscale, 0.71 for the A/F subscale, and 0.67 for the H/D subscale. Using the same sample after

a 3–4 month interval, test–retest reliability was found to be 0.87 for the Total score, 0.93 for the H/A subscale, 0.60 for the A/F subscale, and 0.94 for the H/D subscale.

Validity. Criterion validity of the PBQ was examined using the full and partial standardization sample. The PBQ Total and subscale scores were shown to significantly discriminate between normal and deviant groups of preschool children. Construct validity was examined using a community sample of preschoolers from two sites (Hoge, Meginbir, Khan, & Weatherall, 1985) and was supported for the Total score, H/A subscale score, and A/F score; however, there was no support for the validity of the H/D subscale score. An examination of the factor structure of the PBQ yielded a two-factor solution: aggressive/hyperactive/fearful and anxious/fearful (Fowler & Park, 1979). Further examination of the two-factor solution found that it has a simpler structure and is easier to interpret than the three-factor solution of the PBQ and is stable across ages, sexes, cultures, and socioeconomic populations (Tremblay, Desmarais-Gervais, Gagnon, & Charlebois, 1987).

Source

Contact Lenore Behar, Ph.D., by mail at Child & Family Program Strategies, 1821 Woodburn Lane, Durham, NC 27705, by phone at (919) 489-1888, by fax at (919) 489-1832, by email at lbehar@nc.rr.com or on her web site at www.lenorebehar.com

Cost

The cost of the manual, 50 answer sheets, 50 score sheets, and postage and handling is $300.

Preschool and Kindergarten Behavior Scales (PKBS) – Second Edition

Original citation

Merrell, K. W. (2003). *Preschool and Kindergarten Behavior Scales – Second Edition*. Austin, TX: PRO-ED.

Purpose

To assess problem behaviors and social skills of preschool and kindergarten-aged children.

Population

Children aged 3–6.

Description

The second edition of the PKBS is a 76-item behavior rating scale that can be used by teachers, parents, or other individuals who know the child well. Items are divided by two scales: Problem Behavior (42 items) and Social Skills (34 items). The Problem Behavior Scale consists of two broad subscales (i.e., Externalizing Problems and Internalizing Problems) and five narrow subscales (i.e., Self-Centered/Explosive, Attention Problems/

Overactive, Antisocial/Aggressive, Social Withdrawal, and Anxiety/Somatic Problems). The Social Skills Scale consists of three broad subscales (i.e., Social Interaction, Social Cooperation, and Social Independence). The second edition of the PKBS retained its original test items and rating format, but increased its normative sample to include more racial-ethnic diversity. A Spanish-Language Summary-Response Form was also added to the second edition of the PKBS (Carney & Merrell, 2002).

Administration and scoring

Administration takes approximately 8–12 min. Each item is rated using a 4-point Likert-type scale. Scoring the PKBS involves calculating and converting raw scores for each subscale into standard scores, percentile ranks, and functioning or risk levels. Composite scores for the Problem Behavior and Social Skills Scales are calculated by summing the subscale standard scores of each scale and then converting those scores into composite standard scores. Composite scores for the Problem Behavior and Social Skills Scales are then converted into percentile ranks and risk levels.

Psychometric properties

Norms. The second edition of the PKBS was standardized on a sample of 3,313 preschool and kindergarten students, with 458 cases being added to the initial standardization sample between the years 1996 and 2000 to reflect the U.S. population as cited from the 2000 U.S. Census.

Reliability. Cronbach's coefficient alpha and the Spearman-Brown split half reliability formula ranged from 0.81 to 0.97 across all ages, subscales, and total scores. Test–retest reliabilities ranged from 0.58 to 0.87 at 3 weeks and from 0.66 to 0.78 at 3 months. Internal consistency for the Problem Behavior and Social Skills Scale Total scores ranged from 0.94 to 0.97, with the home raters having lower reliability than the school raters.

Validity. Exploratory and confirmatory factor analyses have supported the theoretical factor structure of the scale. The manual reports moderate to strong correlations with several widely used measures of social skills and problem behaviors, such as the Social Skills Rating System (SSRS: Greshman & Elliot, 1990) and the Conners' Teacher Rating Scales (Conners, 1990), demonstrating convergent validity.

Source

Contact PRO-ED, Inc. by mail at 8700 Shoal Creek Boulevard, Austin, TX 78757-6897, by phone at (800) 897-3202, by fax at (800) 397-7633, by email at info@proedinc.com, or on their web site at http://www.proedinc.com

Cost

The cost of the test manual and 50 test forms in a sturdy storage box is $110.

Alternative forms

Spanish version is available.

Preschool Social Behavior Scale – Teacher form (PSBS-T)

Original citation

Crick, N. R., Casas, J. F., & Mosher, M. (1997). Relational and overt aggression in preschool. *Developmental Psychology, 33*, 579–588.

Purpose

To assess prosocial behaviors, withdrawal, peer acceptance, and peer rejection, as well as relational and overt aggression.

Population

Preschool children.

Description

The PSBS-T was developed based on the Children's Social Behavior Scale – Teacher Form (CSBS-T; Crick, 1996) for use with elementary school age children. The PSBS – Teacher Form is a 25-item measure of children's social behavior including prosocial behavior, withdrawal, and aggression. The PSBS-T consists of scales assessing peer acceptance, prosocial behavior, depressed affect, relational aggression, and overt aggression. Peer acceptance is assessed with two items separately assessing same-sex and other-sex peer acceptance. The measure contains four items assessing prosocial behavior and three items measuring depressed affect. Relational and overt aggression are each assessed with eight items. The frequency of each item on the PSBS-T is rated on a 5-point scale (1 = *Never or almost never true*, 2 = *Not often*, 3 = *Sometimes*, 4 = *Often*, 5 = *Always or almost always true*).

Administration and scoring

The PSBS-T takes approximately 15 min to complete and is hand-scored. To derive scale scores, all items for a particular scale are summed. Cutoff scores for the PSBS-T are not provided.

Psychometric properties

Norms. Psychometric properties were derived using a sample of 65 preschool children aged 3.5–5.5 years from four preschool classrooms (Crick, Casas, & Mosher, 1997).

Reliability. Internal consistency coefficients (Cronbach's alpha) for the scales of the PSBS-T were 0.88 for the prosocial behavior scale, 0.96 for the relational aggression scale, 0.94 for the overt aggression scale, and 0.87 for the depressed affect scale.

Validity. Principal components factorial analysis with varimax rotation was conducted and the four predicted factors (relational aggression, overt aggression, prosocial behavior, and depressed affect) accounted for 81% of the variance.

Comparisons were conducted between the PSBS-T and the PSBS-P (Peer Report). For boys, a significant correlation of 0.32 for overt aggression was obtained, but the correlation between peer and teacher reports of relational aggression were nonsignificant. For girls, significant correlations were obtained for both overt and relational aggression (0.31, 0.42, respectively).

Source

The PSBS-T is available from its author, Nicki Crick, Ph.D. Dr. Crick's mailing address is: Nicki Crick, PhD, Director, Institute of Child Development, University of Minnesota, 51 East River Road, Minneapolis, MN, 55455-0345.

Cost

There is no cost for this measure.

Alternative forms

The PSBS is available in a Peer Report form. In addition, a comparable measure, the Children's Social Behavior Scale, is available in Peer and Teacher Report forms for elementary school children.

Pupil Evaluation Inventory (PEI)

Original citation

Pekarik, E. G., Prinz, R. J., Liebert, D. E., Weintraub, S., & Neale, J. M. (1976). The Pupil Evaluation Inventory: A sociometric technique for assessing children's social behavior. *Journal of Abnormal Child Psychology*, *4*, 83–97.

Purpose

To assess social functioning in children and adolescents.

Population

Children and adolescents aged 6–15.

Description

The Pupil Evaluation Inventory (PEI) was developed to assess a broad range of behavior related to social functioning and predictive of later adjustment. The PEI consists of three main factors. An aggression factor assesses classroom disruption, physical aggression and attention-seeking (e.g., "Those who always mess around and get in trouble"). A withdrawal factor consists of items that describe social withdrawal, shyness, and oversensitivity (e.g., "Those who are too shy to make friends"). A likability factor contains items related to popularity and social competence (e.g., "Those who are liked by everyone"). Overall, the PEI consists of 35 items.

Administration and scoring

The PEI takes approximately 30 min to complete. It can be completed by either peers or teachers. This measure is typically administered in a classroom setting and scored manually.

Psychometric properties

Norms. Psychometric properties were initially evaluated using teacher ratings on a sample of 181 boys and 171 girls from grades 1–9. Means and standard deviations for teacher ratings on the PEI for the total sample are reported by gender and fall into two age groups, grades 1–5 and grades 6–9. There is also a total sample mean and standard deviation.

Reliability. Cronbach's alpha internal consistency correlations were computed for each factor: the aggression factor internal consistency was greater than 0.90; the likability factor was above 0.70; and the withdrawal factor ranged from 0.58 to 0.68. Two-week test–retest correlations were also obtained from two third grade classrooms and two sixth grade classrooms. Test–retest correlations for the three factors ranged from 0.81 to 0.95.

Validity. Factor analyses produced four factors accounting for 65% of the variance. The three factors that remained in the measure were Aggression, Likability, and Withdrawal. Because the fourth factor accounted for a small proportion of the variance (less than 4%) and did not appear to tap an identifiable cluster of items, it was excluded from the measure. With regard to concurrent validity, the PEI teacher-peer correlations were positive ranging from 0.28–0.80, with a mean correlation of 0.57 for the factor scores. Intercorrelations between teacher and peer ratings by age, gender, and factor are included in the original citation.

Source

This measure is available in the original citation: Pekarik, E. G., Prinz, R. J., Liebert, D. E., Weintraub, S., & Neale, J. M. (1976). The Pupil Evaluation Inventory: A sociometric technique for assessing children's social behavior. *Journal of Abnormal Child Psychology, 4*, 83–97.

Cost

There is no cost for this measure.

School Social Behavior Scale (SSBS-2)

Original citation

Merrell, K. W. (1993). Using behavior rating scales to assess social skills and antisocial behavior in school settings: Development of the School Social Behavior Scales. *School Psychology Review, 22*, 115–119.

Purpose

To assess social skills and antisocial behavior.

Population

Kindergarten through 12th grade children and adolescents.

Description

The School Social Behavior Scale-2 (SSBS-2) is an instrument that assesses social skills and antisocial behaviors in educational settings. The development of the SSBS-2 was specifically tailored for school settings, and it provides a comprehensive, integrative assessment of both social skill and problematic behavior. The SSBS-2 item development was based on a rational-theoretical approach. Thus, the scale items were based on extant literature on social competence and antisocial behavior in school settings, contents of intervention programs, and existing measures of social skills and behavior rating scales.

The SBSS-2 consists of 32 positively worded items, used for the Social Competence scale, which contains three subscales: Peer Relations, Self-Management/Compliance, and Academic Behavior. Thirty-three negatively worded items are used to assess the Antisocial Behavior scale, which also contains three subscales: Hostile/Irritable, Anti-Social/Aggressive, and Defiant/Disruptive. Items are rated on a 6-point Likert scale (0 = *never* and 5 = *frequently*).

Administration and scoring

Teachers and other school personnel who have known the child for at least 6 weeks are qualified to complete the SSBS-2. It takes approximately 5 min. Scoring the SSBS-2 involves two steps. First, the raw scores for the six subscales and total scores for Social Competence and Antisocial Behavior scales are calculated. Next, the raw scores are converted to standard scores.

Psychometric properties

Norms. The sample included 1,858 students in kindergarten through 12th grade from 22 different public school districts in the United States. The children were from 18 different states with different sized communities in different areas of the country. Norms from the sample are divided into two age groups: Kindergarten through 6th grade and 7th grade through 12th grade.

Reliability. Internal consistency for each subscale and total scale was determined using Cronbach's alpha and ranged from 0.94 to 0.98, suggesting high internal consistency. Test–retest reliability across a 3-week interval ranged between 0.76 to 0.82 on the Social Competence scale and 0.60 to 0.73 on the Antisocial Behavior Scale. Interrater reliability was determined by correlating teacher ratings of a subsample of learning disabled students ($N = 40$) with their classroom aides' ratings. Correlation coefficients ranged from 0.72 to 0.83 on the Social Competence scale and 0.53 to 0.71 on the Antisocial Behavior scale.

Validity. Content validity was determined in part using item-total correlations, which ranged from 0.62 to 0.82 on the Social Competence scale and from 0.58 to 0.86 on the Antisocial Behavior scale. The content validity was also somewhat built in by the theoretical rationale and further supported by confirmatory factor analysis, which produced six factors.

A number of criterion-related validity studies were conducted to evaluate the SSBS-2. A moderate to strong relationship was found between the Waksman Social Skills Rating Scale (WSSRS) and the SSBS-2. The SSBS-2 was also correlated with the Conners'Teacher Rating Scales (CTRS-39). In yet another demonstration, SSBS-2 scores were strongly correlated with scores on the Walker-McConnell Scale of Social Competence and School Adjustment (SSCSA). Finally, the SSBS-2 showed weak to moderate correlations with the Child Behavior Checklist- Direct Observation Form, Revised (CBC-DOF).

The construct validity of the SSBS-2 was examined through the intercorrelations among the Social Competence and Antisocial Behavior subscales comprising the SSBS. The correlations between subscales within each scale were in the expected directions and were moderate to high, ranging from 0.76 to 0.87. The subscale scores within each scale were highly related to the total score of that scale, with correlations ranging from 0.89 to 0.96.

Source

This measure is available from Assessment-Intervention Resources. They can be contacted at 2285 Elysium Avenue, Eugene, OR 97401 or 541-338-8736. Order forms are also available online at http://www.assessment-intervention.com.

Cost

The cost for this measure is $50.00 for the user guide and $37.00 for a packet of 25 rating forms.

Social Competence and Behavior Evaluation-Preschool Edition (SCBE)

Original citation

LaFreniere, P. J., & Dumas, J. E. (1995). *Social Competence and Behavior Evaluation: Preschool Edition*. Los Angeles, CA: Western Psychological Services.

Purpose

To assess patterns of social competence, affective expression, and adjustment difficulties.

Population

Children aged 30–78 months.

Description

The SCBE (previously named Preschool Socio-Affective Profile) is an 80-item, teacher/caregiver behavior rating scale that assesses social competence, affective expression, and adjustment. The function of the measure is to describe behavioral tendencies for socialization and educational purposes, not psychological diagnosis. The scale was constructed from a developmental-adaptational perspective, which emphasizes functional significance of behavioral tendencies and affective expression. The SCBE consists of eight basic scales that include five items describing successful adjustment and five describing maladjustment. The basic scales consist of three scales describing emotional expression (Depressive-Joyful, Anxious-Secure, Angry-Tolerant), three describing peer interactions (Isolated-Integrated, Aggressive-Calm, Egotistical-Prosocial), and two describing teacher-child interactions (Oppositional-Cooperative, Dependent-Autonomous). The four summary scales (Social Competence, Internalizing Problems, Externalizing Problems, and General Adaptation) were developed through factor analyses.

Administration and scoring

Administration takes approximately 15 min. Items are scored along a 6-point Likert-type scale ranging from "almost never" to "almost always." Scoring takes about 10 min and there is an autoscore form. The raw scores are transferred to the profile sheet, which has *T*-scores and percentile ranks. All scales are constructed so that *T*-scores of 63 or higher indicate relatively good adjustment, whereas *T*-scores of 37 or lower are indicative of adjustment difficulty.

Psychometric properties

Norms. The initial version of the SCBE was published in French and preliminary data and psychometric properties based on a sample of 979 French-Canadian preschool children are available. Based on the results obtained with the French version, the instrument was translated into English and standardized on a sample of 1,263 U.S. children at six sites in two states. The sample included 631 girls and 632 boys who were enrolled in preschool classes in Colorado and Indiana.

Reliability. The internal consistency and reliability estimates for the SCBE are reported in the manual. The internal consistency, using Cronbach's alpha, ranged from 0.80 to 0.89 for the eight basic scales in both United States samples. Interrater agreement was available for a subset of the normative group, namely, those in the Indiana sample ($n = 824$) who came from a classroom with two teachers. The reliability estimates for the ratings ranged between 0.72 and 0.89.

Validity. Evidence for construct validity is presented in the factor structure of the SCBE, which supports the theoretical structure of the instrument as a measure of social competence, externalizing problems, and internalizing problems. Construct validity of the SCBE was also evaluated by convergent and discriminant analyses comparing SCBE scores with the Child Behavior Checklist scores (Achenbach & Edelbrock, 1983). The Anxiety scale of the CBCL was highly correlated with the SCBE Internalizing Problems scale, whereas it was weakly correlated with the SCBE Externalizing Problems scale. Criterion-related validity was evaluated by comparing the SCBE with measures of peer sociometrics and direct observations of behavior. A random sample of 126 children enrolled in a Montreal preschool were identified as socially competent (S-C), anxious-withdrawn (A-W), angry-aggressive (A-A), and average (AV) on the basis of the SCBE. Observation of children suggested significant differences between the groups with the A-W children spending more time in isolation than the other groups, and the A-A group receiving significantly more negative peer nominations.

Source

This measure is available from Western Psychological Services. They can be contacted at 12031 Wilshire Blvd, Los Angeles, CA 90025-1251 or (800) 648-8857 (United States and Canada only) or (310) 478-2061. Additional information is also available on their web site: http://portal.wpspublish.com.

Cost

The cost for a complete kit is $92. A complete kit includes 25 AutoScore[TM] forms and the manual. When purchased separately, the price is $44 for 25 AutoScore[TM] forms and $53 for the manual.

Social Skills Rating System for Parents (SSRS-P)

Original citation

Gresham, F. M., & Elliott, S. N. (1990). *Social Skills Rating System: Manual.* Circle Pines, MN: American Guidance Service.

Purpose

To evaluate the social behaviors of children in order to screen for concerns and develop appropriate interventions.

Population

Preschool (from age 3 years) and elementary school-aged children in kindergarten through 6th grade.

Description

The SSRS-Parent Questionnaire is comprised of a checklist of items (ranging from 49 on the Preschool version to 55 on the Elementary School version) that is typically completed by a child's parent or guardian. It assesses positive social behaviors along four subscales: Cooperation, Assertion, Responsibility, and Self-Control. These are combined to make up the Social Skills Scale. In addition, the Parent Questionnaire yields two subscales for the preschool version (Internalizing and Externalizing), with a third subscale (Hyperactivity) included on the Elementary School version that are combined to form the Problem Behaviors Scale. Items on the Parent Questionnaire are rated according to their frequency (i.e., how often a behavior occurs) and importance (i.e., how important the behavior is believed to be for successful functioning). The frequency items are rated on a 3-point Likert-type scale (0 = *Never*, 1 = *Sometimes*, or 2 = *Very Often)*. The importance items are also rated on a 3-point scale (0 = *Not Important*, 1 = *Important*, 2 = *Critical)*. Items on the Parent Questionnaire cover a range of behaviors indicative of adequate social skills, including asking adults for help, compromising during disagreements, giving compliments to others, following directions, and starting conversations with others.

Administration and scoring

The SSRS takes approximately 15–25 min to complete and can be administered individually or in a group format. Scoring can be completed by hand or by computer. After completion of the measure, an Assessment-Intervention Record summarizing social skills strengths and weaknesses is developed. Information is provided for scales, subscales, and items in the manual. Standard scores and percentile ranks allow for comparisons to populations of same-age, same-gender peers for the Social Skills, Problem Behaviors, and Academic Competence scales. Behavior functioning levels are also identified for the scales and subscales, including *below average*, *average*, and *above average*. Low frequency ratings and high importance ratings highlight behaviors that are of concern.

Psychometric properties

Norms. The SSRS was standardized in 1988 using a national sample of 4,170 children between 3 and 18 years of age, with ratings made by the children themselves, a subset of 1,027 parents, and 259 teachers. The sample was stratified by grade and sex and included children from 18 states. Norms are also available for handicapped and nonhandicapped students.

Reliability. The manual reports Cronbach's alpha internal consistency coefficients for the Parent Questionnaire ranging from 0.57 to 0.90. Test–retest reliability after a 4-week period was 0.87 for Social Skills and 0.65 for Problem Behaviors.

Validity. The SSRS has been shown to accurately discriminate between students with social skills deficits and those with appropriate social skills, as well as students who are "handicapped" (with learning, intellectual, behavioral, and/or emotional problems) and those without such problems. Content, construct, and concurrent validity have been supported by extensive research and more information can be obtained in the manual.

Source

Contact AGS Publishing/Pearson Assessments by mail at P.O. Box 1416, Minneapolis, MN 55440, by phone at (800) 627-7271, or on their web site at www.agspearsonassessments.com.

Cost

The SSRS Preschool/Elementary Starter Set (includes Teacher, Parent, and Student Questionnaires, Assessment Intervention Records, and Manual) costs $147, and the SSRS Preschool/Elementary Starter Set with ASSIST (includes Teacher, Parent, and Student Questionnaires, Assessment Intervention Records, Manual and ASSIST computer scoring program) costs $364.

Alternative forms

Alternate parent rating forms are available for secondary school children (7th through 12th grades). A self-report Student Questionnaire is also available for elementary school children (3rd through 6th grade) and secondary school children (7th through 12th grades). Teacher rating forms are available for preschool, elementary school, and secondary school children.

Social Skills Rating System for Teachers (SSRS-T)

Original citation

Gresham, F. M., & Elliott, S. N. (1990). *Social Skills Rating System: Manual*. Circle Pines, MN: American Guidance Service.

Purpose

To evaluate the social behaviors of children in order to screen for concerns and develop appropriate interventions.

Population

Preschool (from age 3 years) and elementary school-aged children in kindergarten through 6th grade.

Description

The SSRS-Teacher Questionnaire is comprised of a checklist of items (ranging from 40 on the Preschool version to 57 on the Elementary School version) that is typically completed by a child's teacher or other school personnel with at least 2 months of exposure to the student. It assesses positive social behaviors along three subscales: Cooperation, Assertion, and Self-Control. These are combined to make up the Social Skills Scale. In addition, the Teacher Questionnaire yields two subscales for the Preschool version (Internalizing and Externalizing), with a third subscale (Hyperactivity) included on the Elementary School version that are combined to form the Problem Behaviors Scale. Items on the Teacher Questionnaire are rated according to their frequency (i.e., how often a behavior occurs) and importance (i.e., how important the behavior is believed to be for successful functioning). The frequency items are rated on a 3-point Likert-type scale (0 = *Never*, 1 = *Sometimes*, 2 = *Very Often)*. The importance items are also rated on a 3-point scale (0 = *Not Important*, 1 = *Important*, 2 = *Critical)*. Items on the Teacher Questionnaire cover a range of behaviors indicative of adequate social skills, including asking adults for help, compromising during disagreements, giving compliments to others, following directions, and starting conversations with others. Additionally, an Academic Competence subscale is included on the Elementary School version that consists of nine items rated on a 5-point scale ranging from Lowest 10% to Highest 10%, which allows the teacher to rate the child's academic performance as compared to his or her peers.

Administration and scoring

The SSRS-T takes approximately 15–25 min to complete and can be administered individually or in a group format. Scoring can be completed by hand or by computer. After completion of the measure, an Assessment-Intervention Record summarizing the child's social strengths and weaknesses is developed. Information is provided for scales, subscales, and items in the manual. Standard scores and percentile ranks allow for comparisons to populations of same-age, same gender peers for the Social Skills, Problem Behaviors, and Academic Competence scales. Behavior functioning levels are also identified for the scales and subscales, including *below average*, *average*, and *above average*. Low frequency ratings and high importance ratings highlight behaviors that are of concern.

Psychometric properties

Norms. The SSRS was standardized in 1988 using a national sample of 4,170 children between 3 and 18 years of age, with ratings made by the children themselves, a subset of 1,027 parents, and 259 teachers. The sample was stratified by grade and sex and included children from 18 states. Norms are also available for handicapped and nonhandicapped students.

Reliability. The manual reports internal consistency coefficient alphas for the Teacher Questionnaire ranging from 0.74 to 0.95. Test–retest reliability across a 4-week period (for the elementary standardization sample, only) was found to be 0.85 for Social Skills, 0.84 for Problem Behaviors, and 0.93 for Academic Competence. Test–retest reliability was not available for the preschool sample.

Validity. The SSRS-T has been shown to accurately discriminate between students with social skills deficits and those with appropriate social skills, as well as students who are "handicapped" (with learning, intellectual, behavioral, and/or emotional problems) and those without such problems. Content, construct, and concurrent validity have been supported by the extensive research and more information can be obtained in the manual.

Source

Contact AGS Publishing/Pearson Assessments by mail at P.O. Box 1416, Minneapolis, MN 55440, by phone at (800) 627-7271, or on their web site at www.agspearsonassessments.com.

Cost

The SSRS Preschool/Elementary Starter Set (includes Teacher, Parent, and Student Questionnaires, Assessment Intervention Records, and Manual) costs $129.99, and the SSRS Preschool/Elementary Starter Set with ASSIST (includes Teacher, Parent, and Student Questionnaires, Assessment Intervention Records, Manual and ASSIST computer scoring program) costs $364.

Alternative forms

Alternate teacher rating forms are available for secondary school children (7th through 12th grades). A self-report Student Questionnaire is also available for elementary school children (3rd through 6th grade) and secondary school children (7th through 12th grades). Parent rating forms are available for preschool, elementary school, and secondary school children.

Student Behavior Survey (SBS)

Original citation

Lachar, D., Kline, R. B., Wingenfeld, S. A., & Gruber, C. P. (1995). *Student Behavior Survey.* Los Angeles, CA: Western Psychological Services.

Purpose

The SBS is used to identify emotional and behavioral maladjustment. The authors developed it to be used as a multidimensional assessment along with the Personality Inventory for Children, Second Edition (PIC-2) and the self-report Personality Inventory for Youth (PIY). Of particular interest are the Social Skills and Social Problems subscales.

Population

Students in grades K through 12 (aged 5–18).

Description

The SBS is a comprehensive rating scale with 102 items. Responses lie on a Likert-type scale. Items 1–8 refer to areas of achievement and are rated from 1 = deficient to 5 = superior. Items 9–102 measure behavioral frequency and are rated from 1 = never to 4 = usually. The SBS consists of 14 subscales within three broad categories: Academic Performance (i.e., Academic Habits, *Social Skills*, Parent Participation), Adjustment Problems (i.e., Health Concerns, Emotional Distress, Unusual Behavior, *Social Problems*, Verbal Aggression, Physical Aggression, Behavior Problems), and Disruptive Behavior (i.e., Attention Deficit Disorder, Oppositional Defiant Disorder, Conduct Disorder). The Social Skills subscale contains eight items (e.g., "listens when other students speak," "Maintains eye contact when speaking"). The Social Problems subscale has 12 items (e.g., "Angers other students," "Criticized by other students").

Administration and scoring

The SBS was developed for teachers or school psychologists to complete in approximately 15 min. Using the SBS profile form, raw scores can be quickly converted to *T*-scores. The authors state that the SBS should be administered only by teachers who have known the students for at least 2 months. Raw scores can be obtained by summing the items on each subscale. A norm table in the administration book helps to convert the raw scores into standardized scores (with a mean of 100 and a standard deviation of 15). The standardized norms are gender-specific and are divided into two age groups: 5–11 and 12–18 years.

Psychometric properties

Norms. The standardization sample consisted of 2,612 regular education students with approximately 200 students assessed within each grade level (i.e., from kindergarten through grade 12). There were roughly equal numbers of boys and girls in the sample, and the ethnic background of the sample was proportionally comparable to U.S. census data. Though the measure approximates the U.S. census data in terms of ethnicity and gender, it does not in terms of geography. Each region of the United States was represented in proportions similar to the U.S. census data; however, no students from California or New York were included and more than half of the study sites were located within just three states. The SBS was also examined within a sample of 1,315 students referred for assessment related to academic and behavioral concerns and therefore included students in special education settings, clinical settings, and juvenile justice settings. In this sample, there were almost twice as many boys as girls, possibly reflective of the nature of the referrals.

Reliability. Internal consistency estimates determined using Cronbach's alpha were good and ranged from 0.84 for the Physical Aggression subscale to 0.93 for the Academic Habits subscale (Wingenfeld, Lachar, Gruber, & Kline, 1998). Of interest, the internal consistency estimates for the Social Skills and Social Problems subscales ranged from 0.86 to 0.88 for both the regular education sample and for the special education sample. Test–retest reliability was evaluated 1.7 weeks and 11.4 weeks for children and at 2.1 weeks and 28.5 weeks for adolescents. Shorter interval reliability ranged from 0.78 to 0.92 for elementary school students and from 0.66 to 0.97 for secondary school students, whereas longer interval samples had a median retest reliability of 0.71. For adolescents, test–retest reliabilities for the Social Skills subscale were 0.97 at 2 weeks and 0.74 at 28 weeks, and reliabilities for the Social Problems subscale were 0.84 at 2 weeks and 0.58 at 28 weeks. For children, test–retest

reliabilities for the Social Skills subscale were 0.88 at 2 weeks and 0.57 at 11 weeks, and reliabilities for the Social Problems subscale were 0.90 at 2 weeks and 0.68 at 11 weeks.

Validity. The manual reports mild to moderate correlations between the SBS and the PIC-2 scales, and one study reported that 11 out of the 14 scales of the SBS had correlations with the PIC-2 greater than 0.49 (Lachar, 2004). Specifically, in a nonreferred sample ($N = 1,199$), the Social Skills scale significantly correlated with the Cognitive Impairment (-0.39), Impulsivity and Distractibility (-0.48), Delinquency (-0.42), Reality Distortion (-0.33), Physical Discomfort (-0.28), and Social Skills Deficits (-0.34) scales of the PIC-2. The Social Problem scale significantly correlated with Cognitive Impairment (0.34), Impulsivity and Distractibility (0.42), Delinquency (0.37), Reality Distortion (0.28), Physical Discomfort (0.27), and Social Skills Deficits (0.34) scales. Further, the authors determined that 98 out of 102 items on the SBS statistically discriminated between regular education students and referred students (Lachar, 2004).

Source

The SBS can be obtained through Western Psychological Services. They can be contacted by mail at 12031 Wilshire Blvd, Los Angeles, CA 90025-1251, by phone at (800) 648-8857, or on their web site at http://www.wpspublish.com.

Cost

The manual and 25 profile forms can be purchased for $95. The profile forms alone cost $40 for a package of 25. There is an optional scoring disk/CD that will score 25 reports for $115.50.

Taxonomy of Problematic Social Situations (TOPS)

Original citation

Dodge, K. A., McClaskey, C. L., & Feldman, E. (1985). Situational approach to the assessment of social competence in children. *Journal of Consulting and Clinical Psychology, 53*, 344–353.

Purpose

To identify those social situations and tasks in which a child has the most difficulty.

Population

Elementary school children.

Description

The Taxonomy of Problematic Social Situations (TOPS) contains 44-items describing situations and tasks with which children would be most likely to have social difficulties. Items are divided into six categories: Peer Group Entry (5 items), Response to Peer Provocation (10 items), Response to Failure (9 items), Response to Success (3 items), Social Expectations (11 items), and Teacher Expectations (6 items). Each item is rated by a teacher as to how

difficult the situation would be for a child and the likelihood that the child would respond in an inappropriate manner. Items are rated on a 1 to 5 scale (1 = *never;* 5 = *almost always*).

Administration and scoring

The TOPS is designed to be completed by a child's classroom teacher. It is manually scored by summing the items in each factor to create a factor score. The ratings yield a profile that identifies problematic situational contexts and social skills deficits for the child. The results can be used to identify more problematic situations for further assessment.

Psychometric properties

Norms. Psychometric evaluation was based upon a sample containing 45 socially rejected and 39 socially adaptive second, third, and fourth graders. As such, norms are limited.

Reliability. Regarding internal consistency, Cronbach's alphas ranged from 0.89 to 0.97 for all children in the sample during a fall data collection and from 0.88 to 0.96 during a spring data collection. Alphas ranged from 0.82 to 0.94 for the socially rejected children and from 0.81 to 0.91 for the socially adaptive children. Across that time period the total score yielded a test–retest reliability coefficient of 0.79. For specific items, test–retest correlations ranged from 0.31 to 0.73 and from 0.57 to 0.72 for factor scores.

Validity. A principal components varimax rotation factor analysis revealed a six-factor solution that roughly approximated the eight categories that had been selected a priori. When comparing the ratings of children in the socially rejected group and the socially adaptive groups, significant differences were found. As expected, children in the socially rejected group received significantly higher ratings, indicating that the situations were more problematic for them. The largest between group differences were on the responses to Peer Provocations and Teacher Expectations factors. Group classification was significantly predicted from the six TOPS factor scores with 94.7% of rejected children and 100% of adaptive children correctly classified.

Source

The TOPS can be obtained by contacting Kenneth Dodge, Ph.D. by mail at the Terry Sanford Institute of Public Policy, Duke University Box 90545, Durham, NC 27708-0545 or by email at dodge@duke.edu. This measure is reprinted in Appendix B.

Cost

There is no cost for this measure.

Teacher Assessment of Social Behavior

Original citation

Cassidy, J., & Asher, S. R. (1992). Loneliness and peer relations in young children. *Child Development, 63*, 350–365.

Purpose

To assess prosocial, aggressive, shy/withdrawn, and disruptive behavior of children in a classroom setting.

Population

Children aged 5–7.

Description

The Cassidy and Asher Teacher Assessment of Social Behavior is a 12-item teacher rating scale of children's behavior in the classroom. Teachers rate four dimensions of behavior. Each dimension is assessed with three items. Factor analyses confirmed the four-factor structure of the scale, which includes the Aggressive, Disruptive, Prosocial, and Shy/Withdrawn Behavior subscales.

Administration and scoring

Administration takes approximately 10–15 min. Each item is listed on a separate page, with the names of the children in the classroom listed down the side and rated on a 5-point scale for each student. Teachers are asked to rate how well each item describes the child's behavior. Ratings range from 1 (*very uncharacteristic*) to 5 (*very characteristic*).

Psychometric properties

Sample. Psychometric data were derived from a sample of 452 children (230 boys, 222 girls) in seven kindergarten and 15 first grade classrooms from four mid-sized Midwestern community public schools. The sample was 70% Caucasian, 25% African American, and 5% Asian and was predominantly working middle class.

Reliability. Cronbach's coefficient alpha was 0.91 for the Aggressive Behavior subscale, 0.89 for the Disruptive Behavior subscale, 0.88 for the Prosocial Behavior subscale, and 0.62 for the Shy/Withdrawn Behavior subscale.

Validity. Intercorrelations of the behavior subscales were examined. Correlations among the Aggressive Behavior, Disruptive Behavior, and the Prosocial Behavior subscales had an absolute value range of 0.72–0.77 in the expected directions, whereas the correlations among the Shy/Withdrawn Behavior subscale with the three other behavior subscales had an absolute value range of 0.13–0.30 in the expected directions. Further investigation of the scale also revealed that teacher reports of behavior were related to status and gender congruent with previous literature. For example, aggressive, disruptive, and shy/withdrawn behaviors were found to be more characteristic of low-accepted children than prosocial behavior. In addition, three subscales were found to be correlated with a peer-report version. The Aggressive Behavior subscale had a correlation of 0.75 with the peer measure, while the Shy/Withdrawn and Prosocial Behavior scales had correlations of 0.40 and 0.69, respectively.

Source

Contact Jude Cassidy, Ph.D. or Steven Asher, Ph.D. Dr. Cassidy can be contacted by mail at the University of Maryland, Maryland Child and Family Development Laboratory, Department of Psychology, College Park, MD 20740, by phone at (301) 405-4973, or by

email at jcassidy@psyc.umd.edu. Dr. Asher can be contacted by mail at Duke University, 229 Sociology/Psychology Building, Durham, NC 27708, by phone at (919) 660-5773, or by email at asher@duke.edu. This measure is available in Appendix B.

Cost

There is no cost for this measure. Please contact the authors for additional information.

Teacher-Child Rating Scale (T-CRS)

Original citation

Hightower, A. D., Work, W. C., Cowen, E. L., Lotyczewski, B. S., Spinell, A. P., Guare, J. C., et al. (1986). The Teacher-Child Rating Scale: A brief objective measure of elementary children's school problem behaviors and competencies. *School Psychology Review, 15*, 393–409.

Purpose

To assess socio-emotional adjustment.

Population

Kindergarten through sixth-grade children.

Description

The T-CRS was developed for use in the Primary Mental Health Project, focusing on the early detection and prevention of school adjustment problems. Two measures used in the project, the Classroom Adjustment Rating Scale and the Health Resources Inventory, influenced the T-CRS development.

The T-CRS contains 36 items that assess both problem areas and competencies. Part I of the measure assesses problems and contains three subscales: acting-out, shy-anxious, and learning. Part II assesses competence and also contains three subscales: frustration tolerance, assertive social skills, and task orientation. Participants respond to items using a 5-point Likert-type scale (1 = *Not a Problem*; 5 = *Very Serious Problem* or 1 = *Not at All*; 5 = *Very Well*).

Administration and scoring

The Teacher-Child Rating Scale takes approximately 10 min to complete and can be manually or computer scored.

Psychometric properties

Norms. The psychometric data presented in the original citation were derived from a sample of 1,026 children in kindergarten through sixth grade who comprised four different samples. Normative data are available by sex and geographic area (urban/nonurban).

Reliability. Internal consistency as measured by Cronbach's alpha ranged from 0.85 (shy-anxious scale) to 0.95 (task orientation scale) for the six scales. Test–retest reliabilities were calculated over a period of 20 weeks in one sample (ranged from 0.66 to 0.86) and 10 weeks in two other samples (ranged from 0.61 to 0.91).

Validity. Parts I and II of the T-CRS were separately factor analyzed using three different samples. For Part I, a three-factor solution emerged in all samples that accounted for 72% of the total variance. Each factor contained six items with factor loadings ranging from 0.75 to 0.89 for the acting-out factor, 0.66 to 0.78 for the shy-anxious factor, and 0.76 to 84 for the learning factor. A three-factor solution also emerged for Part II with all three factors accounting for 75% of the total variance. Each factor contained six items with factor loadings ranging from 0.59 to 0.82 on the frustration tolerance factor, 0.57 to 0.83 on the assertive skills factor, and 0.71 to 0.81 on the task orientation factor.

Scores on the T-CRS of children referred from the Primary Mental Health Project and nonreferred children were compared using one-way MANOVAs and ANOVAs. Referred children were distinguished from nonreferred children on five of the six T-CRS subscales. There was no significant difference between the groups on the assertive social skills measure.

Validity of the assertive social skills factor was supported through its significant negative correlation with the State-Trait Anxiety Inventory for Children and significant positive correlation with the Parent Evaluation Form and the Teacher Self Control Rating Scale.

Source

Contact the Children's Institute by mail at 274 North Goodman St., Suite D103, Rochester, NY 14607, by phone at 585-295-1000 or 877-888-7647, or by fax at 585-295-1090.

Cost

The manual costs $35, and a package of 25 rating forms costs $20.

Vineland-II Adaptive Behavior Scales: Parent/Caregiver Rating Form

Original citation

Sparrow, S. S., Cicchetti, D. V., & Balla, D. A. (2005). *Vineland-II: Vineland Adaptive Behavior Scales, Second Edition, survey forms manual.* Circle Pines, MN: AGS Publishing.

Purpose

To assess adaptive functioning and aid in diagnosis and classification of mental retardation and developmental disorders.

Population

Birth through 90 years.

Description

The Parent/Caregiver Rating Form is comprised of 433 items assessing five domains of functioning: Communication, Daily Living Skills, Socialization, Motor Skills, and Maladaptive Behavior. The Maladaptive Behavior Domain is optional for all ages and the Motor Skills Domain is included only for individuals from birth to 6 years of age. When all standard domains are administered for children in that age range, an Adaptive Behavior Composite score can be derived. Of particular interest is the Socialization Domain, which assesses social interactions, use of leisure time, and the demonstration of responsibility and sensitivity to others. It includes the subdomains of interpersonal relationships, play and leisure time, and coping skills.

Administration and scoring

The Parent/Caregiver Rating Form takes approximately 30–60 min to complete, depending on the age of the individual whose behavior is being rated. Both hand and computer scoring are available. Standard scores, percentile ranks, adaptive levels, and age equivalents are available for the Domain and Adaptive Behavior Composite Scores. The standard scores for these have a mean of 100 and standard deviation of 15. Subdomain scales also have standardized scores (with a mean of 15 and standard deviation of 3), adaptive levels, and age equivalents.

Psychometric properties

Norms. The psychometric properties were evaluated using a national normative sample described in the manual. The sample included 3,695 individuals from birth to 90 years of age. The sample was equally split between males and females and included larger numbers of younger participants in order to enhance sensitivity to the rapid developmental increases in adaptive skills in this period. The sample was consistent with the U.S. population in terms of race/ethnicity, community size, geographic region, and socioeconomic status. In the manual, norms are provided by age.

Reliability. Regarding internal consistency, 75% of subdomain split-half reliability coefficients were 0.75 or greater. Overall, reliabilities ranged from 0.70 to 0.95 for the four domains with reliabilities from 0.86 to 0.98 for the Adaptive Behavior Composite. Internal consistency coefficients for the Socialization domain ranged from 0.89 to 0.95 for children from ages 0–18. Test–retest reliability was assessed in a subset of 414 individuals in the standardization sample. Retest intervals ranged from 13 to 34 days. Average subdomain test–retest reliabilities had intraclass correlation coefficients of 0.85 or higher for all age ranges except the 14–21 year-old range (average adjusted $r = 0.76$). Across age spans, mean domain test–retest reliabilities ranged from 0.75 to 0.91. Test–retest reliability of the Socialization domain ranged from 0.74 to 0.93 for children aged 0–21. Interrater reliability (most often between the individual's parents) was assessed in a subsample of 152 individuals aged 0–18. A mean domain correlation of 0.73 and a mean subdomain correlation of 0.71 were found. Interrater reliability for the Socialization domain was 0.64.

Validity. Confirmatory factor analysis of the domains and subdomains of the Vineland-II support its theoretical structure. Testing with clinical groups supports the utility of the Vineland-II for use with these populations. For every level of mental retardation and age examined, significant deficits (greater than two standard deviations) were observed compared to the nonclinical reference group. Similarly, testing with both verbal and nonverbal groups

of individuals with autism exhibited significant differences between the domain and subdomain scores of these groups and the nonclinical reference groups. Furthermore, both groups showed the largest deficits in interpersonal relationships, play and leisure time, and expressive subdomains. The lowest domain score for those in the verbal-autism group was in the Socialization domain. Individuals with Attention-Deficit/Hyperactivity Disorder, in comparison to a nonclinical reference group, had deficits in interpersonal relationships, play and leisure, and coping domains. The individuals with ADHD also had higher mean scores on the maladaptive behavior index and internalizing and externalizing subscales.

When compared with the original *Vineland Adaptive Behavior Scales*, correlations for each domain ranged from 0.65 to 0.94, suggesting considerable consistency between the two forms. Correlations between the Adaptive Behavior Composite of the *Vineland-II* and the General Adaptive Composite of the *Adaptive Behavior Assessment System, Second Edition* ranged from 0.69 to 0.78. The *WISC-III* and *WAIS-III* composite scores had correlations with the *Vineland-II* domain and composite scores ranging from 0.01 to 0.36. The Adaptive Skills Composite of the *Behavior Assessment System for Children, Second Edition* and the *Vineland-II* Adaptive Behavior Composite had correlations ranging from 0.45 to 0.59, and the Social Skills subscale of the *BASC-2* and the Socialization domain of the Vineland-II had correlations ranging from 0.38 to 0.44.

Source

Contact AGS Publishing by mail at 4201 Woodland Road, Circle Pines, MN 55014-1796, by phone at 800-328-2560, or on their web site at www.agsnet.com.

Cost

The Vineland-II Survey Forms Starter Set (includes Survey Interview Forms, Parent/Caregiver Rating Forms, Survey Interview Report to Parents, Survey Forms Report to Caregiver, and Manual) costs $124.99.

Alternative forms

Two semi-structured interview formats, the Survey Interview Form and the Expanded Interview Form, cover similar content and targets as the Parent/Caregiver Form. The Survey Interview Form is also available in Spanish. In addition, a Teacher Rating Form is available.

Vineland-II Adaptive Behavior Scales: Teacher Rating Form

Original citation

Sparrow, S. S., Cicchetti, D. V., & Balla, D. A. (2006). *Vineland-II: Vineland Adaptive Behavior Scales, Second Edition, Teacher Rating Form manual.* Minneapolis, MN: Pearson Assessments.

Purpose

To assess adaptive functioning and aid in diagnosis and classification of mental retardation and developmental disorders.

Population

Preschool-age children to young adults (ages 3–21).

Description

The Teacher Rating Form is comprised of 223 items assessing four domains of functioning: Communication, Daily Living Skills, Socialization, and Motor Skills. The Motor Skills Domain is included only for individuals from birth to 6 years of age. When all standard domains are administered for children in that age range, an Adaptive Behavior Composite score can be derived. Of particular interest, the Socialization Domain assesses social interactions, use of leisure time, and the demonstration of responsibility and sensitivity to others. It includes the subdomains of interpersonal relationships, play and leisure time, and coping skills.

Administration and scoring

The Teacher Rating Form takes approximately 20 min to complete, and is designed to be completed by a teacher who is in frequent contact with the student and has known him or her for at least 2 months. Both hand and computer scoring are available. Standard scores, percentile ranks, adaptive levels, and age equivalents are available for the Domain and Adaptive Behavior Composite Scores. The standard scores for these have a mean of 100 and standard deviation of 15. Subdomain scales also have standardized scores (with a mean of 15 and standard deviation of 3), adaptive levels, and age equivalents.

Psychometric properties

Norms. The psychometric properties described in the manual were derived from a normative sample of 2,570 students aged 3–18 years. The sample was equally split between males and females and was consistent with the U.S. population in terms of race/ethnicity, community size, geographic region, special-education placement, and socioeconomic status. In the manual, norms are provided by age.

Reliability. Regarding internal consistency, 83% of subdomain reliability coefficients were 0.85 or greater. Overall, reliabilities ranged from 0.86 to 0.98 for the four domains with reliabilities from 0.97 to 0.99 for the Adaptive Behavior Composite. Internal consistency coefficient alphas ranged from 0.95 to 0.98 in the Socialization domain. Test–retest reliability was assessed in a subset of 135 students in the standardization sample. Retest intervals were approximately 3 weeks. Average subdomain test–retest reliabilities had correlation coefficients of 0.65 or higher. Mean domain test–retest reliabilities ranged from 0.80 to 0.89, with a test–retest reliability coefficient of 0.81 in the Socialization domain. Interrater reliability (between teachers) was assessed in a subsample of 180 students aged 3–18. A mean domain correlation of 0.47 and a mean subdomain correlation of 0.43 were found. Interrater reliability for the Socialization domain was 0.47.

Validity. Confirmatory factor analysis of the domains and subdomains of the Vineland-II supports its theoretical structure. Testing with clinical groups supports the utility of the Vineland-II for use with these populations. For every level of mental retardation generalized deficits were observed compared to the nonclinical reference group. Similarly, testing with both verbal and nonverbal groups of individuals with autism revealed significant differences between the domain and subdomain scores of these groups and the nonclinical reference groups. Furthermore, both groups showed the largest deficits in interpersonal relationships,

play and leisure time, and expressive subdomains. The verbal-autism group showed the largest deficit in the Socialization domain. Individuals with Attention-Deficit/Hyperactivity Disorder, in comparison to a nonclinical reference group, had deficits in interpersonal relationships, play and leisure, and coping domains.

When compared with the original *Vineland Adaptive Behavior Scales-Classroom Edition*, correlations for each domain ranged from 0.76 to 0.88, suggesting considerable consistency between the two forms. The *WISC-IV* indices had correlations with the *Vineland-II TRF* Domain and Adaptive Behavior Composite scores ranging from 0.00 to 0.31. Correlations between the *WISC-IV* indices and the Socialization domain ranged from 0.00 to 0.16. The Adaptive Skills Composite of the *Behavior Assessment System for Children, Second Edition* and the *Vineland-II TRF* Adaptive Behavior Composite had correlations ranging from 0.63 to 0.76 and the Social Skills subdomain of the *BASC-2* and the *Vineland-II TRF* Socialization domain had a correlation of 0.58.

Source

Contact NCS Pearson, Inc. by mail at P.O. Box 1416, Minneapolis, MN 55440, by phone at 800-627-7271, or on their web site at www.PearsonAssessments.com.

Cost

The cost of the Vineland-II Teacher Rating Form Starter Set (includes 10 Teacher Rating Forms, Report to Parents and Caregivers, and manual) is $100.

Alternative forms

Two semi-structured interview formats, the Survey Interview Form and the Expanded Interview Form, cover similar content and targets as the Teacher Rating Form. The Survey Interview Form is also available in Spanish. In addition, a Parent/Caregiver Form is available.

CHILD ANALOG

Elizabeth J. Shepherd, Agnieszka K. Serwik, and Lauren J. Holleb

Entry Situation

Original citation

Putallaz, M., & Gottman, J. M. (1981). An interactional model of children's entry into peer groups. *Child Development, 52*, 986–994.

Elizabeth J. Shepherd, Agnieszka K. Serwik, and Lauren J. Holleb • Department of Psychology, 5742 Little Hall, University of Maine, Orono, ME 04469.

Purpose

To assess children's behavior when entering a peer group.

Population

Early elementary school-aged children.

Description

The original Entry Situation used peers from the target child's classroom rather than confederates in play situations (Putallaz & Gottman, 1981). In a subsequent study, Putallaz (1983) revised the procedure, using confederates instead of classroom peers and employing additional games during the play situation. Putallaz also added a follow-up interview to the protocol.

The Entry Situation requires a child to join two unfamiliar confederate children of the same age and sex already engaged in playing a word game. The child is introduced to the two confederates by the administrator, who informs the group that he or she will return later to ask their opinions of the game. The confederate children move through several different activities while still playing the board game, including imitating each other's movements or noises, rhyming each other's words, and asking each other questions. The sequence concludes with the confederate children asking the target child to join their game.

Administration and scoring

Administration time for the original procedure is approximately 30 min, with the host children playing alone for 10 min and then playing for 15 min with the entry child.

To score the data, transcripts of the game were coded using a combination of Gottman and Parkhurst's coding system of "thought units" as the level of analysis and codes developed by the authors (as cited in Putallaz & Gottman, 1981). The codes used for the thought units can be categorized as "Information Bid," "Me Bid," "Demand Bid," "Agreement Bid," "Feeling Bid," "Disagreement Bid," "Question for Information Bid," and "Other Bid." Further, the behaviors of the host children in response to the target child were also coded as "Accept," "Reject," or "Ignore." The extended procedure (Putallaz, 1983) focuses on those codes that differentiate between popular and unpopular children, as identified by Putallaz and Gottman (1981), including "Agreement," "Disagreement," "Feeling," "Me," and "Question for Information." Pullataz (1983) additionally coded children's responses as "Relevant," "Irrelevant," and "Tangential." Finally, children are also assigned global ratings of "Not-Interfering" and "Interfering." Other researchers have used modified versions of these codes (e.g., Wilson, 2006).

Psychometric properties

Norms. There are no norms available for this measure. Psychometric properties of the Entry Situation were evaluated using a sample of 82 children in first through third grade (Putallaz & Gottman, 1981). No gender differences were found.

Reliability. In assessing coder reliability, Putallaz and Gottman (1981) found Cronbach's α ranged from 0.78 to 1.00, with a mean of 0.97 for codes related to non-entry. For entry codes, Cronbach's α ranged from 0.87 to 0.99, with a mean of 0.95. Cohen's κ was 0.91 for the original coding scheme and 0.79 for the specific entry codes (i.e., Bid for Entry,

Accept, Reject, Ignore) developed by Putallaz and Gottman (1981). In the extended procedure, Cronbach's α ranged from 0.91 to 0.97, with a mean of 0.96 for the entry codes and Cohen's κ ranged from 0.85 to 0.93, with a mean of 0.89 (Putallaz, 1983). For the relevancy codes (i.e., Relevant, Irrelevant, and Tangential), Cronbach's α ranged from 0.88 to 1.00, with a mean of 0.99 and Cohen's κ ranged from 0.70 to 0.88, with a mean of 0.81. For the global ratings, the Cronbach's α ranged from 0.88 to 1.00, with a mean of 0.99 and Cohen's κ ranged from 0.70 to 0.88, with a mean of 0.81.

Validity. The original and extended versions have been shown to differentiate popular and unpopular children as assessed by a sociometric procedure (Putallaz, 1983). Results from Putallaz and Gottman (1981) indicated that unpopular children use more entry and disagreement bids than popular children, and these strategies frequently resulted in more ignoring and rejection from the play group. In contrast, popular children entered the group with more ease, were more likely to be accepted, and less likely to be ignored. The entry codes used by Putallaz (1983) significantly correlate with children's sociometric ratings and relevancy scores. Children who provided responses that were more relevant to the play situation were more likely to have higher sociometric status.

Source

For information about the procedure, please contact Martha Putallaz, Ph.D. at Duke University, Department of Psychology, Box 90085, Durham, NC 27708. Her email address is: putallaz@acpub.duke.edu, and her phone number is: 919-660-5736.

Cost

There is no cost for the procedure.

Revised Behavioral Assertiveness Test for Children (BAT-CR)

Original citation

Bornstein, M. R., Bellack, A. S., & Hersen, M. (1977). Social skills training for unassertive children: A multiple baseline analysis. *Journal of Applied Behavior Analysis, 10*, 183–195.

Ollendick, T. H. (1981). Assessment of social interaction skills in school children. *Behavioral Counseling Quarterly, 1*, 227–243

Purpose

To assess a child's assertiveness in analog social situations.

Population

Children and adolescents aged 7–14.

Description

This measure of interpersonal skills is a downward extension of the Behavioral Assertiveness Test – Revised (Eisler, Hersen, Miller, & Blanchard, 1975). Additionally, the

current version of the measure is a revised form of the Behavioral Assertiveness Test for Children (Bornstein, Bellack, & Hersen, 1977). It was originally used to identify behavioral treatment targets and monitor treatment outcome. The revised version of the measure, the BAT-CR (Ollendick, 1981), includes more scenarios and prompts. The measure assesses responses to both positive and negative assertion situations with peers.

Administration and scoring

Children are individually assessed with a set of narratives presented through an intercom, while an adult role-play partner provides a prompt for a response. Prompters are both males and females and prompter sex is counterbalanced across narratives. Children are instructed to respond to the prompts as if they were experiencing the narrative. Half of the narratives include positive assertion peer situations (e.g., responding to a compliment) and half involve negative assertion peer situations (e.g., responding to an unfair request). The original BAT-C used nine narratives (Bornstein et al., 1977) but was expanded to 12 scenes with three prompts each in the revised version (Ollendick, 1981).

Children are videotaped during administration for later scoring. Coding categories include eye contact, response latency, response length, and verbal content (Ollendick, Hart, & Francis, 1985). The responses to the positive assertion situations are further categorized as aggression, denial, acceptance, and praise/appreciation. For negative assertion situations, responses are coded as aggression, compliance, noncompliance, and request for new behavior. An alternate scoring procedure uses a 7-point scale ranging from "very unassertive" to "very assertive" with an average score calculated for the positive assertiveness scenarios and another for the negative assertiveness scenarios (Ollendick, 1981).

Psychometric properties

Norms. Standardized norms are not available, though Ollendick (1981) provides means separated by gender for a sample of 82 children between the ages of 8 and 10 years.

Reliability. A sample of 38 elementary school-aged children (19 boys, 19 girls) aged 8–10 years completed the BAT-CR. Trained raters coded the children's interchanges for eye contact, latency of response, and response length. Calculated across 25% of the ratings, interrater reliability was 0.93 for eye contact, 0.96 for response latency, 0.98 for response length, and 0.86 for verbal content (Ollendick et al., 1985). In another study, interrater reliability was calculated on about 33% of the responses from a sample of 69 elementary school-aged children and was found to be 0.87 for eye contact, 0.90 for response latency, 0.96 for response length, and 0.81 for verbal content (Ollendick, Meador, & Villanis, 1986).

Validity. Comparing the BAT-CR to the Children's Assertiveness Inventory (CAI), a self-report measure, Ollendick and colleagues (1986) found that the BAT-CR score for positive assertiveness and overall assertiveness was significantly related in the expected direction to the positive and overall assertiveness scales on the CAI. Further, BAT-CR positive scenario scores for content and duration of response and negative scenario scores for eye contact and duration of response were significantly related in the expected direction to the positive assertiveness scores on the CAI. Additionally, BAT-CR scores for both the positive and negative scenarios on duration of response and latency of response for negative scenarios were significantly related to CAI negative assertiveness scores. In a study of third and fourth grade children, girls' positive and negative assertiveness as measured by the BAT-CR were negatively and significantly related to teacher report of disruptive behavior, and both were also related to sociometric ratings (Ollendick, 1981). A similar pattern was found for boys, except that the BAT-CR did not relate to sociometric ratings. A study examining the social

validity of the BAT-CR found that expert ratings of assertiveness were differentially related to BAT-CR scoring categories depending on sex of prompter and type of assertion category (Ollendick et al., 1985). Similarly, child judge ratings of participant likability varied by participant sex and the situation presented. Specifically, for male participants, the child judges' likability scores were negatively related to praise during negative assertion situations. Male likability was positively related to eye contact during negative assertion scenarios and acceptance during positive assertion situations. In contrast, for girls likability was positively related to response length during negative assertion.

Source

For more information about the BAT-CR, please contact Thomas H. Ollendick, Ph.D, Department of Psychology, Child Study Center, 460 Turner Street, Suite 207, Blacksburg, VA 24060. His phone number is: 540-231-6451, and his email address is: tho@vt.edu.

Cost

There is no cost for this measure.

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Chapter 17
Adolescent Measures

Preface

Kathryn R. Wilson, Judith A. Jordan, and Amanda M. Kras

Adolescence is a developmental period during which social interactions emerge as highly salient. These social interactions impact adolescents' overall well-being and represent a significant source of social support. Although social interactions are important during childhood, these interactions take on a new form during the teen years, as individuals learn a complex set of skills for interacting with others in different types of relationships. The complexity of this skills set stems in part from the increasing importance of peer interactions that may be based on ephemeral social norms and that may be highly specialized to different peer groups and associations. With the increased significance of social interactions during adolescence comes the need for accurate assessment tools that measure adolescent social skills and gauge the nature and outcome of these important interactions. For these tools to be implemented effectively, however, knowledge of them must be made readily available to both researchers and clinicians. The overall goal of this section is to provide researchers and clinicians access to information regarding assessment measures of adolescent social skills and, in doing so, to also highlight areas that would benefit from further development.

While a plethora of assessment tools to assess adolescent social skills exists (e.g., self-report measures, report-by-others measures, etc.), there are only a limited number of direct observation and peer report tools that are currently available to evaluate social skills among adolescent populations. This dearth of standardized observational and peer report assessment measures may be explained at least in part by examining the target population itself. The many settings and peer groups in which an adolescent engages in social interactions, often intentionally and appropriately away from parents and other adults, pose clear challenges to such assessment.

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Observational and peer report assessment measures that target adolescent social skills have the potential to contribute uniquely to social skills assessment by addressing the biases and shortcomings of other assessment methods. For example, observation of social skills minimizes the potential for bias that is inherent in assessment techniques completed by the referring party (e.g., the adolescent's parents or the adolescent's teacher), rather than an objective third party; the established hierarchical relationships that parents and teachers have with the adolescent may preclude them from seeking disconfirmatory evidence of social skills deficits. This threat highlights the need for assessment measures that rely on an objective third party observer, who may less equivocally determine the presence of deficits. However, peer report also offers unique insight into adolescent functioning by approaching social skills assessment from the perspective of those who operate within horizontal, rather than hierarchical, relationships with the adolescent. Peers can speak to the subjective experience of social interactions with the adolescent that may be missed by outside observers or means of assessment by the child or caring adults. Thus, the development of both standardized observational and peer report assessments are needed in research and in clinical work with adolescents.

Direct Observation

Given the relative lack of availability of formal, standardized observational measures, information concerning informal observational techniques used for adolescent populations follows. These techniques do not represent named, psychometrically validated measures, but they provide ideas and alternative strategies for assessing adolescent social skills via direct observation.

Adolescent peer interactions, perhaps the most traditional forum for studying adolescent social skills, have been informally observed in a number of ways. For example, in their study of social competence among a sample of intellectually disabled adolescents, Cutts and Sigafoos (2001) engaged school staff in a series of naturalistic observations. Over the course of a 4-month period, each of nine participants was observed for 100 thirty-second time segments (over five 10-min observation sessions) during which social interactions were rated along four dimensions: interaction type (i.e., short or extended), interaction initiator, respondent, and interaction effect (i.e., positive, such as helpful statements or smiling, or negative, such as derogatory statements or pushing). Interrater reliability checks revealed a 94% convergence in ratings using this system. Margalit (1993) used a similar time-sampling method to assess social skills among mentally handicapped adolescents. This method consisted of rating 25-s observational intervals (conducted in two 15-min sessions) according to positive (e.g., smiling or giving compliments) or negative (e.g., teasing or pushing) interaction quality. Interrater reliability was calculated at 97%. Finally, Lenhart and Rabiner (1995) used a videotaped method to evaluate adolescents' social competence across four types of peer interaction situations, namely, cooperative, "getting acquainted," competitive, and negotiation situations. Social competence was judged on the basis of positive verbal statements and collaboration and was rated on 7-point Likert-type scales. Again, acceptable interrater reliability was demonstrated (kappa coefficient = .79).

Examining a more specific context of adolescent social interaction, observational techniques have also been applied to romantic relationships. For example, Galliher, Welsh, Rostosky, and Kawaguchi (2004) videotaped adolescent couples engaging in two discussions, which were subsequently coded for conversation dominance. Interrater reliability along this dimension was calculated at .74. Alternatively, a video-recall procedure has also been used to evaluate adolescent couple interactions along six dimensions: support, conflict, humor, frustration, conceding, or trying to persuade (Welsh, Galliher, Kawaguchi, & Rostosky, 1999).

Specifically, videotaped discussions between couples were coded in 25-s intervals by trained coders, as well as by the adolescents themselves. Among the coders, interrater reliability was calculated for each dimension as follows: support .76, conflict .74, humor .80, frustration .54, conceding .51, and trying to persuade .85 (Welsh et al., 1999).

Finally, several additional studies have used observational methods to examine adolescents' familial interactions. Although adolescent–parent interactions may not reflect social skills in the same way that interactions between adolescents and their peers or romantic partners do, these familial interactions may nonetheless offer some insight into adolescents' interpersonal functioning. Therefore, a brief review of the techniques developed and applied in this context is included here. Specifically, two studies applied subjective observational ratings to mother–adolescent social interactions (Fauber, Forehand, Long, Burke, & Faust, 1987; Long, Forehand, Fauber, & Brody, 1987). In both of these investigations, videotaped interactions between the mother–adolescent dyads were rated on the basis of the adolescents' problem-solving abilities and degree of positive communication. Interrater reliability along each of these domains across both studies was calculated to be .85 (.91) and .86 (.92), respectively. Relatedly, Welsh, Galliher, and Powers (1998) videotaped parent-adolescent dyads engaging in conflict discussions. Discussions were subsequently divided into 15-s intervals and, using a video-recall procedure, were rated by the parent, the adolescent, and trained coders along four dimensions: support, conflict, humor, and submission. Among coders, interrater reliability in the form of intraclass correlation coefficients was calculated for each dimension, with values ranging from .56 for support to .96 for humor.

Several named observational systems also emphasize adolescents' functioning within the family context. For example, the Iowa Family Rating Scales (IFIRS; Melby et al., 1998) employs 60 behavioral scales to code discussion-based interactions among adolescents and other family members (i.e., parents and siblings). The Modified Marital Interaction Coding System (modified MICS; Robin & Weiss, 1980) uses 23 categories (e.g., conflict, agree, command, compromise, interrupt, put down) to code parent–adolescent discussions for problem-solving abilities. Additionally, while not designed expressly for the purpose of studying adolescents, researchers have applied the Living in Familial Environments coding system (LIFE; Hops, Davis, & Longoria, 1995), which consists of both verbal categories and nonverbal affect codes, to parent–adolescent problem-solving interactions (e.g., Andrews, Foster, Capaldi, & Hops, 2000; Davis, Hops, Alpert, & Sheeber, 1998; Hops, Tildesley, Lichtenstein, Ary, & Sherman, 1990). Along similar lines, the Family Problem Solving Code (FAMPROS; Vuchinich, Vuchinich, & Wood, 1993), designed for use with families with children aged 8 and older, examines familial interactions along six broad domains: positive behavior, negative behavior, participation, relationships, coalition, and problem solving.

Peer report

The most common form of adolescents' assessment of peers' social skills is in the form of sociometric ratings. Sociometric ratings assess the "feelings of attraction" to an adolescent and have been described as a rating of "popularity" by some authors (e.g., Miller, 1990). Sociometric ratings differ from true peer report by focusing on subjective feelings toward an individual, rather than on objective behaviors (Foster, Inderbitzen, & Nangle, 1993). Nonetheless, when used in conjunction, sociometric ratings and peer reports can be useful assessment tools to examine the relationship between social behaviors and social status. Although no formal peer report or sociometric assessments developed exclusively for adolescents were available for review, some authors have developed items or scales as part of a multimodal assessment of adolescent peer social competence. For example, Connolly (1987)

found adolescents' positive and negative nominations of peers in a residential treatment program to be correlated with other measures of social skills, including parent ratings, clinician ratings, and behavioral observation. Englund, Levy, Hyson, and Sroufe (2000) also found a correlation between adolescents' sociometric ratings of positive and negative nominations of likeability among summer camp peers and camp counselor ratings of social skills. It should be noted that both of these studies assessed the relationship of sociometrics with social skills as perceived by adults.

Other research has conducted multimodal assessments within adolescent peer groups. Miller (1990) found a correlation between adolescents' popularity as measured by ratings of how much time peers would like to spend with them and adolescents' social competence as measured by response to vignettes. Cillessen and Borch (2006) compared peer-perceived popularity (i.e., most popular and least popular nominations) to sociometric measures of likeability (i.e., liked most and liked least nominations) throughout high school and found an initial positive correlation that weakened over time.

Peer report and sociometric ratings have not received the level of use and empirical support as other forms of adolescent social skill assessment. There are many reasons that these measures are difficult to construct. Foster and colleagues (1993) link several of these difficulties to temporal instability; adolescent peer groups often do not maintain stable group membership across time. As such, any behaviors that are targeted for study would either have to be seen universally across group culture and maintain stability across time or be very specific to a particular context. Additionally, adolescent behaviors may be judged very differently between adults and adolescents. What may be considered antisocial or undesirable behaviors by adults may be viewed as desirable behaviors by other adolescents. Therefore, measures developed by adults for use by adolescents and measures that are then scored based on adult standards of appropriate social skills may not accurately capture social skills that are deemed important by this population. Also, Foster et al. (1993) indicate that the poor recall and recall bias of youth may lead adolescents to base their ratings of others on recently recalled or poignant interactions, rather than a more general skill level, as additional challenges in constructing these measures. Another difficulty with developing peer report measures is the possibility that the strength of peer influence may shade adolescents' perceptions of another adolescent; they may be more inclined to rate an individual based on how they perceive their peer group to view this individual instead of only taking into consideration how they personally perceive the individual.

Despite the aforementioned difficulties in developing and using peer report and sociometric social skill assessment measures, there are many advantages to pursuing the development of such measures. Gaining adolescents' perspectives on their peer group and other peer groups is a valuable tool for understanding adolescent social behavior. This information allows for a better understanding of how specific behaviors relate to popularity or rejection by a peer group. It also allows for exploration of the development of differences between acceptable behaviors in adolescent peer groups and the stability, or lack there of, of these behaviors across time. Although peer report and sociometric measures of adolescent social skills remain largely unexplored, they represent valuable and much-needed assessment tools.

In conclusion, although it can be a worthwhile endeavor, there are many challenges to conducting social skills assessment of adolescents via direct observation or peer report. There is limited but helpful literature that can provide guidance for clinicians and researchers interested in using or developing such measures. Fortunately, as the remainder of this section reveals, there is also a significant variety of alternative forms of assessment readily available.

ADOLESCENT INTERVIEW

Poonam Tavkar, Stephanie Bruhn, and Kathryn R. Wilson

Interpersonal Negotiation Strategy Interview (INS)

Original citation

Selman, R. L., Beardslee, W., Schultz, L. H., Krupa, M., & Podorefsky, D. (1986). Interpersonal Negotiation Strategies (INS) Interview Procedure. *Developmental Psychology, 22*, 450–459.

Purpose

To assess the means by which individuals meet personal needs through interactions with others when that interaction involves a conflict of needs.

Population

Adolescents ages 11–19.

Description

The INS was developed from a social-cognitive approach to conflict resolution. It addresses structural (i.e., cognitive development) and functional (i.e., information processing) perspectives, describes four levels of social perspectives, and proposes particular strategies that individuals typically use at each level. The INS involves asking individuals a series of standardized questions about a set of social dilemmas to assess their interpersonal negotiation strategies. The context of the dilemmas can vary based on the purpose or direction of the assessment. The evaluator is given the freedom to vary the content of the dilemmas based on the age of the individual being assessed. The INS consists of eight hypothetical dyadic interpersonal dilemmas that vary with respect to three contextual factors: negotiation position; generation; and type of relationship. Conflict situations are presented between a protagonist and a significant other, with the protagonist either wanting something from the significant other or having to react to the other person's efforts to gain something from the protagonist. The name and gender of the protagonist is kept consistent with that of the child (Menna & Cohen, 1997).

Administration and scoring

A typical administration of the INS involves presenting 4–8 hypothetical dilemmas in a semi-structured interview format that can vary between administrations with eight standardized questions and probes. The INS is audiotaped and then transcribed for scoring. Total time to administer the INS is about 30–60 min.

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The manual is specifically designed for determining appropriate scores of responses (Shultz, Yeates, & Selman, 1988). Each question's response is scored on a 4-point scale of developmental levels of social perspective and problem solving. The levels range from Level Zero (*egocentric and undifferentiated thinking with impulsive physical behaviors to solve problems*) to Level Three (*third-person and mutual perspective taking with collabora-tive efforts to achieve mutually beneficial goals*). Each question receives one score with the exception of the third question which has as many scores as responses given by the individual. Questions 1 and 2 provide a developmental level for defining the problem. Question 3 yields a developmental level for generating alternative strategies. Questions 4, 6, and 7 address developmental levels for selecting and implementing specific strategies. Questions 5 and 8 produce a developmental level for evaluating outcomes. Scores across all of these areas can be averaged for each separate dilemma to approximate the average level of social perspec-tive taking for that situation. The final score is calculated by averaging the average scores for each dilemma or each problem-solving step. This final score indicates an overall level of INS development in thought. Higher developmental levels indicate more sophisticated social perspective-taking and problem-solving abilities.

Psychometric properties

Norms. The INS has been used in research with both normal and clinical samples, across a range of ages, from elementary school-age children to adolescents.

Reliability. Interrater reliabilities for the INS have yielded a Cohen's *k* of .56 (Yeates, Schultz, & Selman, 1991). Other studies have produced interrater correlations ranging from .74 to .87 (Yeates, Schultz, & Selman, 1990). Test-retest reliability over a 4-month interval produced a correlation of .69 (Yeates et al., 1991).

Validity. Validity of the INS has been evaluated by comparing the INS scores to IQ scores which produced correlations of .45 (Beardslee, Schultz, & Selman, 1987). Additional studies have examined the relationship between scores on the INS and external behaviors or psychosocial functioning in normal and at-risk populations with correlations falling around .30 (Beardslee et al., 1987; Yeates et al., 1991).

Source

For information about this measure, contact Robert L. Selman, Harvard Graduate School of Education, Cambridge, MA 02138; robert_selman@gse.harvard.edu.

Social Competence Interview (SCI)

Original citation

Ewart, C. K., Suchday, S., & Sonnega, J. R. (1997). *Manual for the Social Competence Interview.* Syracuse, NY: Syracuse University.

Purpose

The Social Competence Interview (SCI) is used to assess physiological responses and social-emotional responses to recurring and stress-inducing real-life problems, and to identify underlying deficits in social competence.

Population

Adolescents and adults.

Description

The SCI is conducted as a brief semi-structured interview. Six cards containing lists of problems covering six different categories of stressors (i.e., neighborhood, money, family, school, friends, and work) are sorted from most to least stressful with the option to remove any card with a topic the participant does not wish to discuss. The remaining cards are then discussed. Following confirmation that the problem frequently causes stress, questions are asked regarding why the problem is stressful, how often it occurs, specific instances when it has occurred, and finally how individuals would cope, their level of confidence in resolving the problem, and possible consequences for their proposed resolution. The interview is then coded for behavioral responses across the two sections of the SCI: (1) The Social Impact scale that represents a general measure of how the individual "comes across" to others with regard to overall demeanor, "body language," and how the interviewer reacts to the individual, and (2) the Interpersonal Skill scale and Goal-Oriented Strivings scale. The Interpersonal Skill scale consists of ten Expressive and five Reflective-Empathic skills. The Goal-Oriented Strivings scale consists of five Self-Defense skills, six Acceptance-Affiliation skills, five Competitive Striving skills, six Stimulation-Pleasure skills, five Approval Seeking skills, and five Self-Improvement skills. All ratings on the Interpersonal Skill and Goal-Oriented Strivings scales are made on a 5-point Likert-type scale from 0 (*not at all*) to 4 (*very much*). There is a separate coding system, on a 1–5 scale to measure overall Social Impact based on a circumplex model of interpersonal relations. Based on this model, "affiliation" (*friendliness* vs. *hostility*) lies on a horizontal axis, and "control" (*control/dominance* vs. *submission/withdrawal*) lies on a vertical axis. The four quadrants for overall Social Impact are as follows: "Responsible-Generous" (high affiliation/high control), "Modest-Dependent" (high affiliation/low control), "Critical-Aggressive" (low affiliation/high control), and "Guarded-Oppositional" (low affiliation/low control). A rating on a 10-point scale of the subject's confidence in his or her ability to perform the preferred coping strategy concludes the interview.

Administration and scoring

The participant is provided with a deck of six cards listing problems that have been frequently reported by urban adolescents. The individual is asked to sort the deck from most to least stressful, with the option of removing from the deck any card he or she would not want to discuss. The interviewer then discusses these topics, from most problematic to least problematic. The interviewee is allowed to shift the focus to a different topic if he/she wishes. The entire interview lasts approximately 10–14 min. The first 2 min are spent establishing that the problem selected is a recurring source of distress. For the next 2–8 min, the interviewer encourages the individual to relate and reconstruct a specific occasion when the identified problem occurred using guided imagery, reflective listening, and empathy. This experiential phase is maintained by repeated questioning for clarification of thoughts, feelings, and situational details. The remaining 6 min focus on particular problem solving capabilities. The participant is asked how he/she would ideally like the problem to be resolved, what actions he/she would take, as well as the actions of others (Ewart & Kolodner, 1991).

Specific instructions for the behavioral coding system are available (Ewart, Jorgensen, Suchday, Chen, & Matthews, 2002). Responses to stimuli are audiotaped for reliable coding.

Psychometric properties

Norms. Normative data are available for Caucasian and African-American adolescents aged 14–15 years from urban Baltimore and Pittsburgh public high schools. Studies using the SCI have primarily consisted of youth vulnerable for cardiovascular risk.

Reliability. Three community-based studies were conducted by the measure author in Baltimore between 1987 and 1999. Interrater reliability on each of the scales has ranged from .64 to .86. All scales demonstrated acceptable to high levels of internal consistency.

Validity. According to the author, the SCI demonstrates good validity. The SCI has been shown to elicit a distinctive pattern of physiological reactivity in children and adolescents that is associated with elevated levels of family conflict. Reactivity, as measured by blood pressure and heart rate, has been shown to match or exceed responses that are typically elicited by commonly used experimental stressors (e.g., mirror-imagining tracing, mental arithmetic, and video games).

Source

For information about this measure contact Craig K. Ewart, Center for Health and Behavior, Department of Psychology, 430 Huntington Hall, Syracuse University, Syracuse, NY, 13244–2340; ckewart@syr.edu.

Vineland Adaptive Behavior Scales, Second Edition: Survey Interview Form

Original citation

Sparrow, S. S., Balla, D. A., & Cicchetti, D. V. (2005). *Vineland Adaptive Behavior Scales: Second Edition*. Circle Pines, MN: American Guidance Service, Inc.

Purpose

To measure adaptive behavior in four domains (Communication, Daily Living Skills, Socialization, and Motor Skills).

Population

Birth to 90 years.

Description

The origin of this measure began with the Vineland Social Maturity Scale, developed by Edgar Doll (1953), which was followed by the development of the Vineland Adaptive Behavior Scales (ABS; Sparrow, Balla, & Cicchetti, 1984). The Vineland-II, the latest in the series, is a substantial revision of the Vineland ABS.

The Vineland-II is available in multiple versions: Two Survey forms (Survey Interview Form and the Parent/Caregiver Rating Form), the Expanded Interview Form, and the Teacher Rating Form. Each form assesses adaptive behavior in four domains. The Survey Interview Form is reviewed here. The Communication Domain includes the Receptive, Expressive, and Written subdomains. The Daily Living Skills Domain assesses the Personal,

Domestic, and Community living skills subdomains. The Socialization Domain includes Interpersonal Relationships, Play and Leisure Time, and Coping Skills subdomains. The Motor Skills Domain focuses on Gross and Fine Motor Skills. There is also an optional Maladaptive Behavior Domain which provides a Maladaptive Behavior Index (Internalizing, Externalizing, and other undesirable behaviors that may interfere with adaptive functioning) and Maladaptive Behavior Critical Items (more severe maladaptive behaviors that may be of clinical interest). The Survey Interview Form includes 383 total items for the Adaptive Behavior Composite and 50 items for the Maladaptive Behavior Domain.

Administration and scoring

The Survey Interview Form is a semi-structured interview that takes approximately 20–60 min to administer depending on the developmental level of the individual. The semi-structured interview format does not require the individual being assessed to participate. A respondent who is familiar with the individual's everyday behaviors is sufficient. The interview is intended to be completed in a single administration.

The starting point for each subdomain is based on the individual's chronological age, or a lower starting point if the individual is developmentally delayed, or when assessing an individual for possible mental retardation. The same starting point should be used for all subdomains. After administering a domain, the interviewer should be sure a basal and ceiling (4 consecutive items) have been established and that all items have been administered. If there are unscored items, the interviewer should go back until all items are scored. Each subdomain appropriate for the age of the individual being assessed should be administered in the order presented in the record book.

Clinicians can choose to administer the Maladaptive Behavior Domain and/or the Maladaptive Critical Items. Each item in the maladaptive behavior sections requires the respondent to answer if the individual U*sually*, S*ometimes*, or *Never* engages in the activity. If the respondent answers *Usually* or *Sometimes*, the Maladaptive Critical Items are also rated for intensity: *Severe* or *Moderate*.

Responses are scored 0 (*never or very seldom performed* or *never performed without help or reminders*), 1 (*performed sometimes* or *partially without physical help or reminders*), or 2 (*usually performed without physical help or reminders*). The manual includes an appendix with detailed scoring criteria for each item. All items below the basal are scored a 2 and all items above the ceiling are scored a 0. An item may be scored N/O (*No Opportunity*) when the individual is not able to perform the activity due to limiting circumstances or DK (*Don't Know*) when the respondent does not know if the individual performs the activity. Scoring the Survey Interview Form is reported to take approximately 15–30 min.

The sum of the Internalizing, Externalizing, and Other raw scores yields the Maladaptive Behavior Index raw score. Each raw score has a corresponding v-scale score and standard scores in the Appendix. The Adaptive Behavior Composite is the sum of the four domain standard scores (i.e., Communication Domain, Daily Living Skills Domain, Socialization Domain, and Motor Skills Domain). Percentile ranks for each standard score and the Adaptive Behavior Composite are available for any age group. Instructions for prorating when items could not be scored are provided.

There are several methods of scoring an individual's performance, including age equivalents that are provided in the Appendix, comparing an individual's strengths and weaknesses using v-scores and standard scores. In addition, an individual's performance may be indicated as one of five Adaptive Levels (Low, Below Average, Average, Above Average, and High). Finally, the Maladaptive Behavior Index and maladaptive scales may be used to describe an

individual's maladaptive behaviors using three categories (Average, Elevated, and Clinically Significant).

To interpret the Vineland-II, the first step is to describe the individual's general adaptive functioning through reporting the Adaptive Behavior Composite standard score and confidence interval. Step two involves reporting the individual's performance in each of the domains by indicating the standard scores and confidence intervals. Then, the subdomain v-scale scores, confidence intervals, adaptive levels, and age equivalents should be reported. Next, standard scores should be examined to determine strengths and weaknesses. Step five involves the interviewer developing hypotheses about any variation in the individual's profile to inform clinical decisions. Finally, maladaptive behavior should be described using v-scale scores and confidence intervals.

Psychometric properties

Norms. The normative sample included over 3,687 individuals selected to be nationally representative of the United States for 20 age groups from birth through 90 years. Each age group was split evenly between males and females and to match the U.S. population in race/ethnicity, socioeconomic status, and geographic region. Special education placement and community size were also controlled. Supplemental data are available for individuals with mental retardation, autism, attention-deficit/hyperactivity disorder, emotional/behavioral disturbance, learning disabilities, and visual and hearing impairments.

Reliability. Internal consistency reliabilities for subdomains are moderate to high, with approximately 75% being above .75. Internal consistency reliabilities for the domains and adaptive behavior composite are generally high, with most above .90. Test-retest reliabilities (for an interval between 13 and 34 days, and an average of approximately 18 days) were high, with most subdomain, domain, and composite values above .85. Inter-interviewer reliabilities (where a second interview was conducted by another interviewer) were good, with subdomain, domain, and composite values generally above .70.

Validity. The Vineland-II manual (Sparrow Balla, & Cicchetti, 2005) discusses theoretical and empirical linkages that provide support for content and construct validity. Validity of the measure for assessment of developmental acquisition of skills and behaviors is also supported by examination of subdomain scores across large samples of individuals across 20 age groups from birth through age 90. The manual documents the success of the measure at avoiding measurement bias by examining results across gender, ethnic groups, and maternal education level. Confirmatory factor analysis supported the domain structure of the measure, and intercorrelations between subdomains are reported to be moderate in size. Evidence is also provided in support of use of the Vineland-II as a measure of adaptive functioning for the diagnosis of mental retardation, and supportive in diagnostic decisions that include autism, learning disability, and attention-deficit/hyperactivity disorder. Concurrent validity is supported by correlation of the Vineland-II and the Vineland ABS Survey Form, with most adjusted correlations in the upper .80s and .90s. Correlations between the Vineland-II and measures of intelligence and behavior are reported in the manual, providing support for the convergent and discriminant validity of the measure.

Source

The measure is available for purchase from Pearson Assessments, P.O. Box 1416, Minneapolis, MN 55440; phone: 800-627-7271; http://www.pearsonassessments.com.

Cost

The Vineland-II Survey Forms Starter Set, which includes the Survey Forms manual, 10 Survey Interview Forms, 10 Parent/Caregiver Rating Forms, 10 Survey Interview Report to Parents, and 10 Survey Forms Report to Caregivers costs $150. The Vineland-II Survey Forms Start Set with ASSIST, scoring and interpreting software, costs $325.

Alternative forms

The Vineland-II is also available in an Expanded Form, a Parent/Caregiver Rating Form, and a Teacher Rating Form. The various forms are available in Spanish.

ADOLESCENT SELF REPORT

Lindsay E. Asawa, Christopher Campbell, and C. Thresa Yancey

Adolescent Assertion Expression Scale (AAES)

Original citation

Connor, J. M., Dann, L. N., & Twentyman, C. T. (1982). A self-report measure of assertiveness in young adolescents. *Journal of Clinical Psychology, 38*, 101–106.

Purpose

To assess assertiveness in peer groups, familial settings, school settings, and overall behavior.

Population

This measure has been examined in a sample of sixth graders.

Description

The AAES is a 60-item self-report measure of assertiveness in adolescents. It was developed based on the conception of assertiveness as "the ability to express one's thoughts and feelings without violating the rights of others" (Connor, Dann, & Twentyman, 1982, p. 101). Items on this scale were intended to tap the domains of assertiveness, aggressiveness, and submissiveness. Items are rated on a 7-point Likert-type scale according to how accurately the item describes the respondent. Responses range from *Very much unlike me* to *Very much like me*. Items cover various contexts, including peer groups (same and opposite sex), familial settings, and school settings.

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Administration and scoring

The AAES typically requires 20–30 min to complete. Reverse-scoring is required for 35 of the 60 items, and a total score is then obtained for overall assertiveness by adding the item responses. Higher scores indicate greater assertiveness. The AAES also yields three subscale scores: *Submissiveness*, *Assertiveness*, and *Aggression*.

Psychometric properties

Norms. The normative sample included 78 sixth-grade students in a small rural community.

Reliability. No data were available on the reliability of this instrument.

Validity. The AAES has been shown to correlate with observational ratings of assertion. Teacher ratings of assertiveness were correlated with scores on the Assertiveness subscale.

Source

To obtain the measure, contact Jane M. Connor, Department of Human Development, Binghamton University, Binghamton, New York 13902-6000; jconnor@binghamton.edu.

Adolescent Social Self-Efficacy Scale (S-EFF)

Original citation

Connolly, J. A. (1989). Social self efficacy in adolescence: Relations with self concept, social adjustment and mental health. *Canadian Journal of Behavioral Science, 21*, 259–269.

Purpose

To assess behavioral effectiveness in problematic peer situations.

Population

This instrument has been examined with adolescents between the ages of 12 and 19.

Description

The S-EFF is a 25-item measure containing ratings of behavioral effectiveness in problematic peer contexts. The items describe commonly occurring social situations that teenagers often find problematic. The items are rated on a 7-point scale ranging from 1 (*Impossible to do*) to 7 (*Extremely easy to do*). The S-EFF assesses social assertiveness, performance in public situations, participation in social groups, friendship and intimacy, and giving and receiving help. Significant gender and age differences have been found on this measure.

Administration and scoring

The S-EFF requires approximately 5–10 min to complete. A total score is obtained by summing the responses to all items. Total scores can range from 25 to 175. High scores indicate higher perceptions of social self-efficacy. Because significant gender and age differences

were found in the normative sample, scores should be compared to the means of the specific gender or age group of the adolescent.

Psychometric properties

Norms. The normative sample consisted of 242 adolescents between 12 and 19 years. A total of 87 adolescents were students at a large suburban high school, 76 were students at a small suburban high school, and 79 were residents at a hospital-based psychiatric facility.

Reliability. Median item-total correlations have ranged from .51 to .67. Internal consistency (Cronbach's alpha) is high, with values ranging from .90 to .95. Test-retest reliability over a 2-week period has been estimated at .84.

Validity. The S-EFF is significantly correlated with other measures of social engagement, social competence, and staff ratings of social adjustment and withdrawal. The S-EFF has also been shown to successfully differentiate between emotionally disturbed and control groups of adolescents.

Source

For information about this measure contact Jennifer Connolly, Department of Psychology, York University, 4700 Keele St., North York, Ontario M3J 1P3; connolly@yorku.ca. This measure is reprinted in Appendix B.

Behavior Assessment System for Children – Second Edition (BASC-2) Social Stress and Interpersonal Relations Subscales: Self-Report of Personality – Adolescent

Original citation

Reynolds, C. R., & Kamphaus, R. W. (2004). *BASC-2: Behavior Assessment System for Children, second edition* [Manual]. Circle Pines, MN: AGS Publishing.

Purpose

To aid in the identification and diagnosis of emotional and behavioral disorders in children and adolescents and to aid in the development of treatment plans.

Population

Adolescents ages 12–21.

Description

The Self-Report of Personality (SRP) for adolescents consists of 150 items that assess the personality, affect, and self-perceptions of adolescents. It includes both true/false statements and items to be rated on a 4-point scale of frequency, ranging from *Never* to *Almost Always*. It is written at approximately a third grade reading level. Subscales on the BASC-2 that address social skills include the Social Stress and the Interpersonal Relations subscales. The Social Stress scale assesses the level of stress experienced in relation to interactions with peers, while

the Interpersonal Relations scale assesses success in relating to others and level of enjoyment derived from it.

This version represents the third revision of the BASC, the original having been developed by Reynolds and Kamphaus (1992) for children aged 4–18. In 1998, an updated version of the BASC, the Behavior Assessment System for Children – Revised (BASC-R), was published to include additional preschool norms for children aged 2 years, 6 months to 3 years, and 11 months. The BASC-2 was published in 2004 and includes enhanced item content, improved computer software, expanded age ranges, new norms based on current census data, and four new scales (Functional Communication, Activities of Daily Living, Attention Problems, and Hyperactivity).

Administration and scoring

The BASC-2 SRP requires approximately 20–30 min to complete. Both hand scoring and computer scoring are available for this measure. Separate subscale scores are obtained for Anxiety, Attention Problems, Attitude to School, Attitude to Teachers, Atypicality, Depression, Hyperactivity, Interpersonal Relations, Locus of Control, Relations with Parents, Self-Esteem, Self-Reliance, Sensation Seeking, Sense of Inadequacy, Social Stress, and Somatization. Composite scale scores are obtained for School Problems, Internalizing Problems, Inattention/Hyperactivity, Emotional Symptoms Index, and Personal Adjustment. *T*-scores and percentile ranks are obtained for each subscale and composite scale, based on both general and clinical populations of same-age peers. Validity index scores are also obtained and a parent feedback report is provided to help parents understand the test results. The computer scoring system provides interpretation output.

Psychometric properties

Norms. The general normative sample for standardization of the BASC-2 Self-Report of Personality for adolescents consisted of 1,900 adolescents from age 12 to 18 across 40 states and 257 cities.

Reliability. In the general normative sample, internal consistency (Cronbach's alpha) for subscales ranged from .67 to .88 and for composite scales ranged from .83 to .96. Test-retest reliability in the normative sample ranged from .61 to .84 for subscales and .74 to .84 for composite scales.

Validity. The correlations between the BASC-2 SRP Social Stress subscale and other measures of social competency were in the expected direction and ranged from .51 to .70. Correlations between the BASC-2 SRP Interpersonal Relations subscale and other measures of interpersonal relations were in the expected direction and ranged from −.42 to −.54.

Source

The measure is available from Pearson Assessments, P.O. Box 1416, Minneapolis, MN 55440; phone: 800-627-7271; http://www.pearsonassessments.com.

Cost

A variety of related products are available, including a manual for $89, an examination set for $124, 25 hand-scored forms for $33.50, and 25 computer-scored forms for $28. ASSIST computer scoring software can be purchased for $259.00.

Alternative forms

Alternate forms include the Parent Rating Scales (preschool, child, and adolescent), Teacher Rating Scales (preschool, child, and adolescent), Structured Developmental History, and Student Observation System. A separate Self-Report of Personality form is available for children from ages 8 to 11. A Spanish version of the BASC-2 is also available.

Children and Adolescent Social and Adaptive Functioning Scale (CASAFS)

Original citation

Price, C. S., Spence, S. H., Sheffield, J., & Donovan, C. (2002). The development and psychometric properties of a measure of social and adaptive functioning for children and adolescents. *Journal of Clinical Child and Adolescent Psychology, 31*, 111–122.

Purpose

To assess the social and adaptive functioning of children and adolescents.

Population

The sample used to evaluate the measure was adolescents between the ages of 12 and 14.

Description

The CASAFS is a 24-item self-report measure of the social functioning of children and adolescents, defined as "the degree to which an individual fulfills the various roles in his or her life" (Price et al., 2002, p. 113). Items are rated on a 4-point Likert-type scale, from 1 (*Never*) to 4 (*Always*). The CASAFS produces a total score plus four 6-item subscales: School Performance, Peer Relationships, Family Relationships, and Home Duties/Self-Care. Sample items from the Peer Relationships subscale include "I go out to places with my friends" and "I have difficulties making friends."

Administration and scoring

The CASAFS requires approximately 5–10 min to complete. The total score and subscale scores are obtained by summing the items. Higher scores represent higher levels of social functioning. The total score can range from 24 to 96.

Psychometric properties

Norms. The psychometric study included 1,478 Australian adolescents (51.4% female) with a mean age of 12.85 (*SD* = .54). They were in Grade 8 in public and private schools, and the majority of the youth were from low- to middle-income families. Means (and standard deviations) by sex are provided for the total and subscale scores.

Reliability. Internal consistency and test-retest reliability were examined on a subsample of 320 youth. Alpha coefficients were as follows: Total score, .81; School Performance, .81;

Peer Relationships, .67; Family Relationships, .74; and Home Duties/Self-Care, .69. Twelve-month test-retest correlations were as follows: Total score, .58; School Performance, .63; Peer Relationships, .59; Family Relationships, .54; and Home Duties/Self-Care, .48.

Validity. Factor analysis confirmed the four dimensions of social functioning represented by the subscales. The CASAFS Total Score and three of the subscale scores (School Performance, Peer Relationships, Family Relationships) negatively correlated with scores on a measure of depression and differentiated a nonclinical group from clinically depressed and subclinical adolescents.

Source

For more information about this measure, contact Susan H. Spence, Gold Coast campus, Griffith University, Gold Coast Campus, QLD 4222, Australia; s.spence@griffith.edu.au. This measure is reprinted in the Appendix.

Loneliness and Social Dissatisfaction Questionnaire

Original citation

Asher, S. R., Hymel, S., & Renshaw, P. D. (1984). Loneliness in children. *Child Development, 55*, 1456–1464.

Purpose

The purpose of this measure is to assess feelings of loneliness and social dissatisfaction in children and adolescents.

Population

The original sample used for development of this measure included children in the 3rd through 6th grades. Subsequently, the measure has been used with adolescents aged 13–17 (e.g., Storch, Brassard, & Masia-Warner, 2003; Storch & Masia-Warner, 2004), as well as with 11–16-year-old adolescents with mild mental retardation (Heiman & Margalit, 1998).
Description

The Loneliness and Social Dissatisfaction Questionnaire is a 24-item self-report measure that requires respondents to rate how true each statement is for them on a 5-point Likert-type scale. Sixteen of the statements are related to loneliness and eight items are "filler" items to examine the validity of responses. Sample items include "It is easy for me to make new friends at school" and "I am well liked by the kids in my class."

Administration and scoring

The Loneliness and Social Dissatisfaction Questionnaire takes 10–15 min to complete. Both written and verbal presentation of the items in a group testing format have been utilized.

The 16 loneliness items are used to create the total score and some items are reverse scored. The greater the total score, the more loneliness was reported. The total score can range from 16 to 80.

Psychometric properties

Norms. No norms were provided.

Reliability. Internal consistency (Cronbach's alpha) was .90.

Validity. Factor analysis resulted in all of the 16 loneliness items loading on the same factor and none of the "filler" items loading on this factor.

Source

For information about this measure, contact Steven R. Asher, Duke University, Box 90085, Durham, NC 27708; asher@duke.edu. This measure is reprinted in Appendix B.

Alternative forms

School-based versions of the Loneliness and Social Dissatisfaction Questionnaire are available for kindergarten and first grade children (Cassidy & Asher, 1992) and middle school students (Parkhurst & Asher, 1992). A Hebrew form of the measure was used by Heiman and Margalit (1998).

Measure of Adolescent Heterosocial Competence (MAHC)

Original citation

Grover, R. L., Nangle, D. W., & Zeff, K. R. (2005). The Measure of Adolescent Heterosocial Competence: Development and initial validation. *Journal of Clinical Child and Adolescent Psychology, 34*, 282–291.

Purpose

To assess heterosocial competence of adolescents in a range of social situations.

Population

Adolescents between the ages of 14 and 18 years.

Description

The MAHC is a 40-item self-report measure of heterosocial skills in adolescents. Heterosocial skills are defined as those social skills that are required for negotiating the full range of other-sex social interactions. Items cover situations arising within acquaintance-ships, friendships, romantic relationships, and abusive relationships. Each item on the MAHC presents a problematic situation and the adolescent is given a choice of four behavioral responses to the situation.

The MAHC was developed through a series of five studies including a total of 700 teens. A list of more than 550 problematic heterosocial situations was generated and then condensed to those situations that are both common and considered difficult by the majority of the population. Comprehensive lists of responses were then obtained for each situation and adult expert judges rated the effectiveness of each response.

Administration and scoring

The MAHC requires approximately 10–15 min to complete. Responses are scored from 1 to 4, with more competent choices receiving higher values. A total score is calculated by adding the responses to the items, and total scores on this measure range from 40 to 160.

Psychometric properties

Norms. The normative sample included 208 primarily Caucasian adolescents between the ages of 14 and 18 years.

Reliability. Internal consistency (Cronbach's alpha) was found to be .73.

Validity. Content and construct validity were supported by careful development and evaluation of the measure, including item and response evaluation. Convergent and discriminant validity were demonstrated through significant correlations with other measures of social competence and a lack of relationship with socioeconomic status.

Source

For information about this measure contact Rachel L. Grover, Department of Psychology, Loyola College in Maryland, 4501 N. Charles St., Baltimore, MD 21210-2699; rlgrover@loyola.edu. This measure is reprinted in Appendix B.

Alternative forms

Separate forms are used for males and females.

Problem-Oriented Screening Instrument for Teenagers (POSIT)

Peer relations and social skills subscales
Original citation

Rahdert, E. R. (1991). *The Adolescent Assessment/Referral System manual.* (DHHS Publication No. ADM91-1735). Rockville, MD: National Institute on Drug Abuse.

Purpose

The POSIT is designed to assess social, emotional, and behavioral problems in teenagers, while the Social Skills scale specifically assesses social skills.

Population

Adolescents with at least a fifth grade reading level. This instrument has been examined in a sample of adolescents and young adults ranging from 11 to 20 years of age.

Description

The POSIT is a 139-item questionnaire designed to screen for social, emotional, and behavioral problems in a variety of functional areas. These functional areas correspond to 10 subscales, including Substance Use/Abuse, Physical Health Status, Mental Health

Status, Family Relations, Peer Relations, Educational Status, Vocational Status, Leisure and Recreation, Aggressive Behavior/Delinquency, and Social Skills. All items require *Yes* or *No* responses. The Social Skills subscale consists of 11 items, including questions such as "Is it hard for you to ask for help from others?" and "Do you think it's a bad idea to trust other people?"

Administration and scoring

The POSIT requires approximately 30–40 min to administer. Questions on the POSIT are categorized as general, age-related, or red-flag items. The general items contribute one point to the risk score for each functional area, while the age-related items only contribute to the risk score for adolescents of a specific age. The total number of items are summed for each functional area, and a total global severity score can be obtained by summing the responses to all 139 items. A clinical cutoff score is provided for each subscale. If scores fall above this cutoff, further assessment is warranted. Flagged items also indicate the need for further assessment.

Psychometric properties

Norms. The POSIT was validated in a sample of 234 adolescents and young adults between the ages of 11 and 20 who were referred for an evaluation of substance use problems.

Reliability. Internal consistency (Cronbach's alpha) coefficients have ranged from .44 (Physical Health Status) to .86 (Substance Use/Abuse) for the functional areas. The internal consistency of the Social Skills subscale has been found to be .53.

Validity. The POSIT has been shown to discriminate between groups of adolescents known to have problems and those without problems. Significant correlations have been found between POSIT subscale scores and other measures of similar functional areas. The POSIT Social Skills subscale has shown moderate correlations with the Mental Health, Family Relations, and Peer Relations subscales and high correlations with the Educational Status and Vocational Status subscales. The Social Skills subscale has also shown a moderate correlation with the Social Isolation subscale of the Personal Experience Inventory.

Source

The measure was developed by Elizabeth Rahdert, National Institute on Drug Abuse, and is available online at http://www.assessments.com/.

Alternative forms

A Spanish translation of this instrument is available.

Social Competence Questionnaire (SCQ) – Pupil Form

Original citation

Spence, S. H. (1980). *Social skills training with children and adolescents: A counselor's manual.* Windsor: NFER Publishing Co.

Purpose

To assess the outcomes of children's and adolescents' social interactions with peers at both home and school in order to design relevant interventions.

Population

Children and adolescents between 8 and 18 years of age.

Description

This measure is one of six measures designed to be administered as part of the program entitled *Social Skills Training: Enhancing Social Competence with Children and Adolescents* (Spence, 1995). This program integrates assessment and intervention to improve interpersonal functioning and is designed for use by school professionals and therapists. The SCQ-Pupil form is a 10-item questionnaire that assesses the consequences (at home and school) of social interactions with peers. Items are rated on a 3-point scale according to how well the statement fits the respondent's experiences, including 0 (*Not True*), 1 (*Sometimes True*), or 2 (*Mostly True*).

Administration and scoring

The SCQ-Pupil form typically requires 5–10 min to complete. A total score for the SCQ is calculated by adding the numerical ratings. Higher scores indicate greater social competence. Total scores can be compared to the mean and standard deviation values from the norm group.

Psychometric properties

Norms. The SCQ-Pupil form was normed on a sample of 376 children and adolescents, aged 8–17, attending Catholic schools in Australia.

Reliability. Internal consistency in the normative sample was robust with an alpha coefficient of .75 and similar split-half reliability values. Reliability data are limited.

Validity. Content and face validity are good, as items appear to be related to social competence and are derived from an extensive review of the literature. Construct validity has been demonstrated by the association between parent, teacher, and student responses to the questionnaires. Youth with social phobia have been found to score significantly lower on the SCQ-Pupil form than matched, nonanxious peers (Spence, Donovan, & Brechman-Toussaint, 1999).

Source

For more information about this measure, contact Susan H. Spence, Gold Coast campus, Griffith University, Gold Coast Campus, QLD 4222, Australia; s.spence@griffith.edu.au.

Alternative forms

Alternate teacher and parent questionnaires are available (see Adolescent Ratings by Others section of this chapter).

Social Problem-Solving Inventory for Adolescents (SPSI-A)

Original citation

Frauenknecht, M., & Black, D. R. (1995). Social Problem-Solving Inventory for Adolescents (SPSI-A): Development and preliminary psychometric evaluation. *Journal of Personality Assessment, 64*, 522–539.

Purpose

To assess covert and overt self-reported problem-solving behaviors in social and personal contexts.

Population

Adolescents between the ages of 14 and 16 years.

Description

The SPSI-A is a 64-item scale assessing positive and negative attitudes about the problem-solving process. Items are rated on a 5-point Likert-type scale, with responses ranging from 0 (*Not at all true of me*) to 4 (*Extremely true of me*). This measure includes three scales (Automatic Process Scale, Problem Orientation Scale, and Problem-Solving Skills Scale) and eight subscales (Cognitive, Emotion, Behavior, Problem Identification, Alternative Generation, Consequence Prediction, Implement/Evaluate, and Reorganize). The SPSI-A was developed based on definitional validity and theories of problem solving and stress management. The adult version of the SPSI was originally published in 1990 by D'Zurrilla and Nezu and has been modified to lower the reading level of the items to an appropriate level for adolescents.

Administration and scoring

The SPSI-A requires approximately 20–30 min to administer. Responses for the items associated with negative attitudes are reverse scored and then all items are summed to yield a raw total score. This total is then divided by the total number of items. This process is used to determine scale scores and subscale scores as well. Higher scores are indicative of higher problem-solving ability. Strengths and weaknesses in problem-solving abilities can be determined by comparing scores to normative values.

Psychometric properties

Norms. The normative sample consisted of 1,062 high school students in 10 schools, with relatively equal gender distributions and predominantly White participants.

Reliability. Internal consistency (alpha coefficient) in the normative sample was .95 for the total score and ranged from .78 to .95 for the scale and subscale scores. Test-retest reliability estimates have demonstrated the stability of the SPSI-A over time, with correlation coefficients ranging from .63 to .83 across a 2-week period.

Validity. The SPSI-A has shown high correlations with other problem-solving measures, such as the Problem-Solving Inventory (.82). Evidence has also been provided for concurrent

validity with the Personal Problems Checklist for Adolescents (–.32) and the Brief Symptoms Inventory (–.23).

Source

For more information on this measure, contact Marianne Frauenknecht, Department of Health, Physical Education, and Recreation, Western Michigan University, 4024-6 GC, Kalamazoo, MI 49008-3871; m.frauenknecht@wmich.edu. The measure and manual may be purchased at http://mysite.verizon.net/spsi_a/. Sample items from this measure are reprinted in Appendix B.

Cost

The SPSI-A manual is available for $19, and electronic short and long versions are available for $6. Electronic scoring and test interpretation is also available for purchase (long version costs $3 person with data retention and $5 person without data retention; short version costs $2 person with data retention and $4 person without data retention).

Alternative forms

A 30-item short version is available. In addition, the SPSI-A is available in Spanish, Romanian, Turkish, Chinese dialect used in Taiwan, and simplified Chinese characters used in the People's Republic of China.

Social Skills Rating System (SSRS) – Student Questionnaire (Secondary Level)

Original citation

Gresham, F. M., & Elliott, S. N. (1990). *Social Skills Rating System* [Manual]. Circle Pines, MN: American Guidance Service.

Purpose

To evaluate the social behaviors of adolescents in order to screen for concerns and develop appropriate interventions.

Population

Adolescents in grades 7–12.

Description

The SSRS Student Questionnaire (Secondary Level) is a 39-item self-report measure of adolescent social behaviors. It assesses positive social behaviors along five subscales: Cooperation, Assertion, Responsibility, Empathy, and Self-control. Items on the Social Skills Scale are rated according to their frequency (i.e., how often a behavior occurs) and importance (i.e., how important the behavior is believed to be for successful functioning). These frequency items are rated as 0 (*Never*), 1 (*Sometimes*), or 2 (*Very Often*). The importance of

items are also rated as 0 (*Not Important*), 1 (*Important*), or 2 (*Critical*). Items on the Student Questionnaire cover a range of behaviors indicative of adequate social skills, including asking adults for help, compromising during disagreements, giving compliments to others, following directions, and starting conversations with others.

Administration and scoring

The SSRS Student Questionnaire requires 10–25 min to complete. Both hand scoring and a computer scoring program are available for this measure. After completion of the measure, an Assessment-Intervention Record is completed for the adolescent that summarizes his/her strengths and weaknesses. Information is provided for scales, subscales, and items. Standard scores and percentile ranks are provided for the Social Skills subscales to allow comparisons to populations of same-age peers. Behavior functioning levels are also identified for the scales and subscales, including below average, average, and above average. Finally, the ratings of frequency and importance on each item can be analyzed to aid in developing interventions.

Psychometric properties

Norms. The SSRS was standardized in 1988 on a national sample of 4,170 children in grades 3–12. Of this sample, 1770 students in grades 7–12 completed the secondary level form. The sample was stratified by grade and sex and included children from 18 states. Norms are also available for handicapped and nonhandicapped students, as well as separately for girls and boys.

Reliability. The manual reports internal consistency coefficients ranging from .84 to .95. Test-retest reliability for the total score was found to be .67.

Validity. The SSRS has been shown to accurately discriminate between students with social skills deficits and those with appropriate social skills, as well as students who are "handicapped" (with learning, intellectual, behavioral, and/or emotional problems) versus those without such problems. The manual provides detailed discussion of research supporting the content, construct, and concurrent validity of the measure.

Source

The measure is available from Pearson Assessments, P.O. Box 1416, Minneapolis, MN 55440; phone: 800-627-7271; http://www.pearsonassessments.com.

Cost

A variety of related products are available, including a Secondary Level Starter Set for $125 (includes a manual, 10 copies each of Teacher, Parent, and Student Questionnaires, and 10 Assessment-Intervention Records) and a computer scoring program for $259 (includes a software manual and a Macintosh/Windows CD ROM).

Alternative forms

Teacher and parent rating forms are available for preschool children (3–4 years), elementary school children (Kindergarten through 6th grade), and secondary school children (7th through 12th grades). An alternate Student Questionnaire is also available for elementary school children (3rd through 6th grade).

Teenage Inventory of Social Skills (TISS)

Original citation

Inderbitzen, H. M., & Foster, S. L. (1992). The Teenage Inventory of Social Skills: Development, reliability, and validity. *Psychological Assessment, 4*, 451–459.

Purpose

To identify adolescents with poor social skills and select appropriate target behaviors for intervention, through capturing self-report information that is often unavailable to teachers and parents.

Population

Adolescents in grades 9 and 10, between 14 and 16 years of age.

Description

The TISS is a 40-item self-report measure of social skills deficits in adolescents and can be used to identify target behaviors for intervention. This measure consists of a 20-item positive scale (e.g., help others with homework, apologize to others, ask for advice) and a 20-item negative scale (e.g., push others, ignore, make things up to impress others). Items are rated on a continuum ranging from 1 (*Does not describe me at all*) to 6 (*Describes me totally*). Items for the TISS were selected based on adolescent reports of behaviors that increased or decreased liking for peers, studies examining behaviors that adolescents perceive as important for friendships, behaviors targeted in social skills training programs, and studies investigating the behaviors associated with adolescent peer acceptance.

Administration and scoring

The TISS requires approximately 5–10 min to complete. The TISS yields both a positive behavior score and a negative behavior score. The positive behavior score can be calculated by adding the values of the positive items, and the negative behavior score can be calculated by adding the values of the negative items.

Psychometric properties

Norms. Multiple samples of students in grades 9 and 10 were assessed in the development and evaluation of the TISS. The sample used for reliability assessment consisted of 41 adolescents, and the samples used in two validity studies had 30 and 148 adolescents. Most of the students were White, although they represented a wide range of socioeconomic levels.

Reliability. Internal consistency coefficients (Cronbach's alpha) for the TISS positive and negative scales were both .88. Test-retest Pearson correlations were .72 for the negative scale and .90 for the positive scale. The correlation between the two scales was –.26, indicating that the scales are assessing separate areas of behavior.

Validity. Convergent validity was supported through documentation of the relationships of TISS scores with measures obtained via self-monitoring, peer ratings, and sociometric data. Discriminant validity was demonstrated through examination of correlations of TISS

scores with the Children's Social Desirability Scale, the Conflict Behavior Questionnaire, and socioeconomic status.

Source

For more information, contact Heidi M. Inderbitzen-Nolan, Department of Psychology, University of Nebraska-Lincoln, Lincoln, NE 68588-0308; phone: 402-472-3721. This measure is reprinted in Appendix B.

Transition Competence Battery for Deaf Adolescents and Young Adults (TCB) Job-Related Social and Interpersonal Skills Subscale

Original citation

Bullis, M., & Reiman, J. (1992). Development and preliminary psychometric properties of the Transition Competence Battery for Deaf Adolescents and Young Adults. *Exceptional Children, 59*, 12–26.

Purpose

To assess work and social skills necessary for persons who are deaf and hard of hearing to live and work successfully in the community.

Population

Deaf and hard of hearing adolescents from 18 to 19 years of age. Limited English-reading skills are necessary, and the TCB is targeted at individuals who primarily use sign language for communication.

Description

The TCB is a 178-item test battery designed to be administered to small groups of deaf and hard of hearing adolescents and young adults. The written version is written at the third grade reading level and is illustrated. A video version in which the test items are signed in Pidgin Sign English is also included in the assessment. All items are written in multiple-choice format, with three possible answers.

Administration and scoring

The TCB takes approximately 180 min to complete. Scores and recommended remediation levels for six different subtests are calculated, including Job-Seeking Skills, Work Adjustment Skills, Job-Related Social and Interpersonal Skills, Money Management Skills, Health and Home Skills, and Community Awareness Skills. Scores are hand-calculated and the report provides raw scores, their percentage equivalents, percentile scores, and error bands. Percentile scores allow comparisons to same-age peers in mainstream or residential settings.

Psychometric properties

Norms. The TCB was standardized on groups of 181–230 students (18 and 19 years old) from mainstreamed and residential settings.

Reliability. Internal consistency (Cronbach's alpha) for the Job-Related Social and Interpersonal Skills subtest was .86 and test-retest reliability (2–4 week interval) for this subtest was .85.

Validity. Content validity evidence was demonstrated through the procedures used to generate content-relevant test items. To establish the skills taxonomy, 18 professionals in the field of deafness identified skills for the target population related to employment and independent living, and then a national survey of practitioners and leading experts in the field was conducted to evaluate these skills. Construct validity for the TCB was also found to be adequate.

Source

The measure is available for purchase from the James Stanfield Company, Inc., P.O. Box 41058, Santa Barbara, CA 93140; phone: 800-421-6534; http://www.stanfield.com/.

Cost

The cost for a complete set of materials for the TCB is $399.

Alternative forms

In addition to the written form, a video form that presents the test items in sign languages is available.

Youth Self-Report (YSR) Social Competence and Social Problems Subscales

Original citation

Achenbach, T. M., & Rescorla, L. A. (2001). *Manual for the ASEBA School-Age Forms & Profiles*. Burlington, VT: University of Vermont, Research Center for Children, Youth, & Families.

Purpose

To assess social competence and behavior problems in children and adolescents.

Population

Children and adolescents between the ages of 11 and 18.

Description

The YSR is part of the Achenbach System of Empirically Based Assessment (ASEBA), which includes multiple youth, parent, and teacher measures. The YSR can be administered orally or completed by individuals with a fifth grade reading level. It consists of 112 problem items, which are rated on a 3-point scale according to how true each item is for the child currently or within the past 6 months, ranging from 0 (*Not true*) to 2 (*Often true*). Academic performance is rated separately on a 4-point scale for each subject, ranging from *Failing* to *Above Average*. Additional items address friendships, physical problems, concerns, and strengths. The YSR also includes 14 socially desirable items that most teens endorse about themselves. The YSR is modeled on the extensively researched Child Behavior Checklist (Achenbach & Rescorla, 2001).

Administration and scoring

The YSR requires approximately 15–20 min to complete. Raw scores, *T*-Scores, and percentiles are calculated for two competence scales (Activities and Social), Total Competence, eight cross-informant syndrome scales, six DSM-oriented scales, Internalizing, Externalizing, and Total Problem scales. The Social Competence scale and the Social Problems cross-informant scale are particularly useful for assessing social skills in adolescents. Both hand scoring and computer scoring are available for the YSR. *T*-scores and percentile ranks allow comparisons to general and clinical populations of same-age peers, with higher scores indicating lower functioning. Computer software is available which provides profiles, cross-informant comparisons, and narrative reports of results.

Psychometric properties

Norms. The normative sample for the YSR included 1,057 children and adolescents between the ages of 11 and 18. A total of 110 sites across 40 states were included.

Reliability. Test-retest reliability for the various subscales has ranged from .47 to .79, and internal consistency (Cronbach's alpha) has ranged from .71 to .95.

Validity. The manual summarizes extensive research supporting content, criterion, and construct validity of this instrument. The ASEBA, including the YSR, has been used extensively in research. The ASEBA web site (www.aseba.org) includes an extensive bibliography of more than 6,500 studies, including more than 800 studies that have used the YSR.

Source

The YSR is available from ASEBA, 1 South Prospect Street, Burlington, Vermont 05401-3456; phone: 802-656-5130; www.aseba.org.

Cost

A variety of items are available for purchase, including a manual for school-age forms and profiles ($40), a package of 50 forms ($25), hand-scoring templates ($7), and a school-age computer-scoring starter kit ($395).

Alternative forms

The YSR form is available in an online version and translated into 71 different languages. A separate Teacher's Report Form (ages 6–18) is available, as well as a Child Behavior Checklist parent report form (ages 6–18).

ADOLESCENT RATINGS BY OTHER

Emily Trask and Lindsay E. Asawa

Adaptive Behavior Inventory (ABI) Social Skills Subscale

Original citation

Brown, L., & Leigh, J. E. (1986). *Adaptive Behavior Inventory.* Austin, TX: PRO-ED.

Purpose

To evaluate functional daily living skills and identify students believed to be mentally retarded or emotionally disturbed.

Population

Students ages 6–18.

Description

The ABI is a norm-referenced inventory with a total scale score and five subscales: Self-Care, Communication, Academic, Occupational and Social Skills. Each subscale has approximately 30 items that lie on a 4-point Likert-type scale ranging from 0 (C*hild does not perform skill*) to 3 (*Skill mastery*). Items are arranged by difficulty level, with suggested starting points for different ages.

Administration and scoring

The ABI was developed for teachers or other professionals who have daily contact with the students to complete it in approximately 30 min. Scaled scores and percentile ranks can be derived for the total scale and each subscale. The total scale score can be calculated from four or five scales. Because items are arranged by difficulty, a basal level is established at five items in a row receiving ratings of 3 (s*kill mastery*), and a ceiling occurs when there are five consecutive ratings of 0 (c*hild does not perform skill*). For each individual item, the higher the rating the greater the mastery of the student over that particular skill. Similarly, higher scores on each scale reflect more mastery within a particular domain.

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Psychometric properties

Norms. The ABI has two normative samples, one with students of normal intelligence ($N = 1,296$) and one with students with mental retardation ($N = 1,076$). The normative sample is geographically representative and has equal numbers of female and male students. The authors report that the sample is representative of school-age children nationally in terms of ethnicity, geography, sex, and socioeconomic status.

Reliability. Internal consistency estimates are above .85 for all scales. Test-retest reliability estimates range from .91 to .98 over a 10–14 day period for all scales. No interrater reliability information is reported for the ABI.

Validity. The authors of the ABI conducted a literature review and an item analysis, providing evidence for the content validity of the inventory. Support for construct validity includes evidence that ABI scores increase with age, IQ, and achievement and that it discriminates among students with varying levels of achievement (Evans & Bradley-Johnson, 1988).

Source

The ABI is available for purchase from PRO-ED, Inc, 8700 Shoal Creek Boulevard, Austin, TX 78757-6897; phone: 800-897-3202; http://www.proedinc.com/.

Cost

A starter set of the ABI (manual, 25 profile and response sheets, and 25 short forms) is available for $95. As individual purchases, the manual costs $47, 25 profile and response sheets cost $36, and 25 short forms cost $16.

Alternative forms

ABI-Short Form is a quick-score, 50-item version of the test, which yields a total adaptive behavior score but no social skills subscale score.

Behavior Assessment System for Children – Second Edition (BASC-2) Social Skills Subscale: Parent Rating Scales – Adolescent

Original citation

Reynolds, C. R., & Kamphaus, R. W. (2004). *BASC-2: Behavior Assessment System for Children, second edition* [Manual]. Circle Pines, MN: AGS Publishing.

Purpose

To aid in the identification and diagnosis of emotional and behavioral disorders in children and adolescents and to aid in the development of treatment plans.

Population

Adolescents between the ages of 12 and 21.

Description

The BASC-2 Parent Rating Scales (PRS) for adolescents consist of 150 items that assess adaptive and problem behaviors in community and home settings. The BASC-2 Teacher Rating Scales (TRS) consist of 139 items that assess adaptive and problem behaviors in the school setting. Items assess specific behaviors that are rated on a 4-point scale according to frequency, ranging from *Never* to *Almost Always*. Items on the PRS are written at approximately a fourth grade reading level. The PRS and TRS Social Skills subscales consist of items that assess social adaptation and interpersonal skills, such as complimenting others, offering assistance, and saying "please."

This is the third revision of the Behavior Assessment System for Children, following the original published in 1992 and the Behavior Assessment System for Children – Revised (BASC-R) published in 1998. The BASC-2 includes enhanced item content, improved computer software, expanded age ranges, new norms based on current census data, and four new scales (Functional Communication, Activities of Daily Living, Attention Problems, Hyperactivity).

Administration and scoring

The BASC-2 PRS requires approximately 10–20 min to complete, and the TRS requires approximately 10–15 min.

Both hand scoring and computer scoring are available. The PRS and TRS include subscale scores for Adaptability, Aggression, Anxiety, Attention Problems, Atypicality, Conduct Problems, Depression, Functional Communication, Hyperactivity, Leadership, *Social Skills*, Somatization, and Withdrawal. The PRS also includes an Activities of Daily Living subscale, and the TRS includes Learning Problems and Study Skills subscales. Composite scale scores are obtained for Adaptive Skills, Behavioral Symptoms Index, Externalizing Problems, and Internalizing Problems. The TRS also includes a School Problems composite. *T*-scores and percentile ranks allow comparisons to general and clinical populations of same-age peers. Validity index scores are also obtained to identify invalid responses. The computer scoring system provides interpretation output.

Psychometric properties

Norms. The general normative sample for standardization of the BASC-2 consisted of 1,800 adolescents from ages 12 to 18 across 40 states and 257 cities.

Reliability. In the general norm sample, internal consistency (Cronbach's alpha) for the PRS subscales ranged from .72 to .88 and for composite scales ranged from .90 to .95. The mean Cronbach's alpha for the PRS Social Skills subscale was .88. PRS test-retest reliability in the norm sample ranged from .75 to .88 for subscales and .83 to .90 for composite scales. Test-retest reliability for the PRS Social Skills subscale was .82.

In the general norm sample, internal consistency (Cronbach's alpha) for the TRS subscales ranged from .80 to .95 and for composite scales ranged from .91 to .97. The mean Cronbach's alpha for the TRS Social Skills subscale was .92. TRS test-retest reliability in the norm sample ranged from .74 to .90 for subscales and .81 to .92 for composite scales. Test-retest reliability for the TRS Social Skills subscale was .74.

Validity. Content, construct, and concurrent validity of the PRS and TRS have been supported by extensive research. The correlations between the PRS Social Skills subscale and other measures of social competency ranged from –.32 to –.41. The correlations between

the TRS Social Skills subscale and other measures of social competency ranged from –.20 to –.35.

Source

The measure is available from Pearson Assessments, P.O. Box 1416, Minneapolis, MN 55440; phone: 800-627-7271; http://www.pearsonassessments.com.

Cost

A variety of related products are available, including a manual for $89, an examination set is available for $124, 25 hand-scored forms for $33.50, and 25 computer-scored forms for $28. ASSIST computer-scoring software can be purchased for $259.00.

Alternative forms

Alternate forms include the Parent and Teacher Rating Scales for preschoolers (ages 2 $\frac{1}{2}$–5) and children (ages 6–11), Self Report of Personality (child and adolescent), Structured Developmental History, and Student Observation System. A Spanish version of the BASC-2 is also available.

Child Behavior Checklist for Ages 6–18 (CBCL/6-18)

Social competence and social problems subscales

For detailed information on this parent-report measure please refer to the Child Ratings by Other section in Chapter 16 (pp. 280–282).

Child Behavior Checklist – Teacher's Report form for Ages 6–18 (TRF/6-18)

Social problems subscale

For detailed information on this teacher-report measure please refer to the Child Ratings by Other section in Chapter 16 (pp. 282–284).

Home and Community Social Behavior Scales (HCSBS)

Original citation

Merrell, K. W. (2008). *Home and Community Social Behavior Scales (HCSBS) User's Guide.* Baltimore, MD: Brookes Publishing.

Purpose

The HCSBS measures social behavioral problems and competencies of children and adolescents. It is designed for parents and other caretakers to provide their perceptions of the youth's social behaviors in home and community settings. The HCSBS is intended to be a

companion measure to the School Social Behavior Scales (SSBS-2), which measures social behavior in school. Together they constitute a comprehensive cross-informant rating system.

Population

Children and adolescents ages 5–18.

Description

The HCSBS is a behavioral rating scale with 64 items. Responses lie on a Likert-type scale ranging from 1 (*Never)* to 5 (*Frequently)*. The measure includes two total scores: Social Competence and Antisocial Behavior. The Social Competence scale has two subscales subsumed within it: the Peer Relations subscale which assesses positive peer interactions, and the Self-Management/Compliance subscale, which assesses the youth's response to the social expectations of adults. The Antisocial scale also has two subscales: the Defiant/Disruptive subscale, which measures oppositional challenging behavior and the Antisocial/Aggressive subscale which measures dangerous, destructive, coercive, and rule-violating behavior.

Administration and scoring

The HCSBS was developed for parents or other caretakers that live with the youth to use. This brief scale takes approximately 5–10 min to complete.

Individual ratings are summed as subscale and total scale raw scores, which can then be converted to percentile ranks. Further, scores can be categorized into "Social Functioning Levels" (SFLs). The Social Competence scale and subscales have four SFLs (i.e., high functioning, average, at-risk, and high risk). The Antisocial Behavior scale and subscales have three SFLs (i.e., average, at-risk, and high-risk). These SFLs and percentile ranks are derived separately for ages 12–18. Higher scores on the Social Competence scale indicate greater levels of social adjustment, whereas higher scores on the Antisocial Behavior scale indicate greater levels of social-behavioral problems.

Psychometric properties

Norms. This measure has a normative sample of 1,562 youth ages 5–18. The normative sample is representative of the U.S. population in terms of race, special education status, socioeconomic status, and gender. There were separate norms developed for children aged 5–11 and for adolescents aged 12–18. A limitation of the normative sample is that it includes an aggregate norm for females and males, even though there was a significant gender difference on both scales.

Reliability. Test-retest reliability was estimated over a 2-week period using a subset of the normative sample. For the Social Competence scale and subscales the test-retest reliability ranged from .82 to .84 and for the Antisocial Behavior scale and subscale it ranged from .89 to .91. The authors estimated interrater reliability by correlating responses of two raters (usually the youth's parents). Interrater reliability ranged from .85 to .86 for the Social Competence scales and from .64 to .71 for the Antisocial Behavior scales. The interrater reliability for the Antisocial Behavior scales is troubling if the HCSBS is being used to identify individuals for interventions or programs. The HCSBS is best used as a screening device, which is the authors' intended purpose for the measure (Lund & Merrell, 2001).

Validity. Merrell, Streeter, Boelter, Caldarella, and Gentry (2001) investigated the convergent and discriminant validity of the HCSBS. They found that the Social Competence

scale of the HCSBS had a strong positive correlation ($r = .72$) with the Social Skills composite score of the Social Skills Rating System (SSRS) and moderate negative correlations with the Externalizing and Internalizing scales of the SSRS (r's $= -.57$, $-.60$, respectively). Further, the Antisocial Behavior scale had strong positive correlations with the Oppositional, Hyperactivity, and ADHD scales of the Conners Parent Rating scale (ranged from .71–.87). The construct validity of the HCSBS has been examined in children aged 6–12. For instance, Lund and Merrell (2001) found that that the HCSBS differentiated between youth with emotional-behavioral disorders, learning disorders, and those in general education. However, no similar comparisons were made with adolescents. This suggests that the construct validity of the HCSBS needs to be examined further with adolescents.

Source

The HCSBS is available for purchase from Brookes Publishing, P.O. Box 10624, Baltimore, MD 21285-0624; phone: 800-638-3775; http://www.brookespublishing.com.

Cost

The HCSBS manual costs $49.95, and a package of 25 forms costs $34.95.

Alternative forms

A Spanish version of the HCSBS is available. The HCSBS is a companion to the School Social Behavior Scales-2 (Merrell, 2008), which is also reviewed in this chapter.

Informal Rating Matrix (IRM)

Original citation

Bain, A. (1991). The development and validation of an informal rating matrix to measure social skills in early adolescents. *Educational Psychology, 11*, 3–19.

Purpose

To identify strengths and deficits in adolescents' social skills in classroom settings as well as target behaviors for intervention.

Population

Adolescents between 12 and 15 years of age.

Description

The IRM consists of 16 items, 11 of which assess responses to interpersonal social interactions and five that assess initiation of these interactions. Items address specific social skills, such as receiving negative feedback and giving compliments. Teachers are asked to choose from five possible responses that best represent the student's behavior in specific problematic situations in which each skill may be necessary. Teachers can also use each item to generate

qualitative information about the student's actual behavior in specific situations. The resulting set of behavioral descriptors can then be validated through direct observation.

The behavior analytic method was used as the framework in developing the IRM. This instrument was developed based on a review of the literature, current curricula, and assessment tools related to social skills training with adolescents. Focus groups of teachers and students were held to discuss the social validity of the items. Two qualified judges ranked possible responses according to effectiveness in dealing with the problematic situations.

Administration and scoring

The IRM requires approximately 10 min to complete. The IRM does not produce a score for social skills. Rather, a set of behavioral descriptors are generated to describe the student's behaviors in various settings. The behavioral descriptors identified using the IRM can be validated through direct observation. Unfortunately, inter-individual comparisons are not possible using this measure.

Psychometric properties

Norms. The normative sample consisted of 58 high school teachers, 5 upper primary school teachers, and 55 adolescent students from the United States and Australia. The students ranged from 12 to 15 years and attended school in regular education, special education, and juvenile detention facilities.

Reliability. Test-retest reliability was found to be .89 over a 1-week period of time. Internal consistency for the IRM (Cronbach's alpha) was found to be .85.

Validity. Social validity was supported through focus groups with teachers and students. Two experts in the field of social skills found the content validity to be adequate. Direct observation found 90% of observed student behaviors corresponded with responses on the IRM.

Source

For information about this measure, contact Alan Bain, Charles Sturt University, School of Teacher Education, Panorama Avenue, Bathurst NSW 2795, Australia; abain@csu.edu.au

Interpersonal Competence Scale – Teacher Form (ICS-T)

Original citation

Cairns, R. B., Leung, M., Gest, S. D., & Cairns, B. D. (1995). A brief method for assessing social development: Structure, reliability, stability, and developmental validity of the Interpersonal Competence Scale. *Behavior Research Therapy, 33*, 725–736.

Purpose

The ICS-T was developed to assess the social development of youth through ratings by adults.

Population

Students in grades 3–12 (or ages 9–18).

Description

The measure has 18 items that typically are completed by teachers or parents. Each item is presented as a unidimensional, 7-point bipolar scale (e.g., *Never Argues* to *Always Argues*; *Always Smiles* to *Never Smiles*). There are five subscales measuring aggressiveness, popularity, academic achievement, social affiliation, and Olympian qualities.

Administration and scoring

This measure was developed for school personnel who are familiar with the child to complete in less than 5 min. The authors state that it can be modified for caregivers by replacing the words "this student" with "your son" or "your daughter."

Items can be turned into subscales of Aggressiveness, Popularity, Academic Achievement, Social Affiliation, and Olympian qualities (e.g., attractiveness, sporting prowess). The total scale score is the unweighted mean of the five subscale scores (with the Aggressive factor reversed in sign). The higher the subscale or total scale score the more descriptive it is of the student.

Psychometric properties

Norms. The normative sample of the ICS-T reflects the sample used for the Carolina Longitudinal Study. Specifically, the sample comprised 220 fourth graders and 475 seventh graders from North Carolina. The sample was approximately 75% Caucasian and 53% female. This normative sample was not compared to U.S. census data, so there is no information as to whether it is a representative sample. However, this sample is not representative of the general U.S. population in terms of geography nor does it include a representative sampling of students from all of the grades for which it purports to be useful (3rd through 12th).

Reliability. Internal consistency estimates range from .67 for the Olympian qualities subscale to .82 for the Aggressiveness subscale. Internal consistency for the total ICS-T scale was .84. Test-retest reliability was assessed at 3-week intervals for a sample of fourth ($N = 58$) and seventh ($N = 78$) graders. The median test-retest reliability estimates ranged from .69 for the Social Affiliation subscale to .89 for the Aggressiveness subscale and .91 for the Total scale.

Validity. The ICS-T has been shown to be predictive of negative outcomes (e.g., school dropout, teenage parenthood) later in life. Further, the authors investigated the factor structure of the ICS-T using Principle Components analysis and Principle Axis Factoring. Although they did not find full support for their proposed five-factor structure, they did find that a three-factor structure consisting of Aggressiveness, Popularity, and Academic Achievement was supported across all grade levels and both genders.

Source

For more information about this measure, contact Thomas Farmer, Department of Educational and School Psychology and Special Education, Pennsylvania State University, 227 Cedar Building, University Park, PA 16802; twf2@psu.edu.

School Social Skills Rating Scale (S3)

Original citation

Brown, L. J., Black, D. D., & Downs, J. C. (1984). *School Social Skills Rating Scale*. East Aurora, NY: Slosson Educational Publications, Inc.

Purpose

The purpose of the S3 is to identify competencies and deficits in school-related social behaviors.

Population

Students in grades 1–12.

Description

The S3 has 40 items that measure the frequency of engaging in prosocial behaviors (e.g., gives compliments). Responses lie on a Likert-type scale ranging from 1 (*No Opportunity to Observe*) to 6 (*Always Uses Skill under Appropriate Conditions*). The S3 measures prosocial skills in the areas of Adult Relations (12 items), Peer Relations (16 items), School Rules (6 items), and Classroom Behaviors (6 items). This measure is a criterion referenced measure, and therefore no scale or subscale scores are computed.

Administration and scoring

The S3 was developed for school personnel to complete in approximately 10 min. The authors state that the rater should be thoroughly familiar with the S3 curriculum before completing the scale.

Ratings of two, three, and four on individual items indicate that these are problematic social behaviors, and ratings of five or six suggest that there is not a problem.

Psychometric properties

Norms. No norms are provided. The authors explain that this is because it is a criterion-referenced scale.

Reliability. The authors conducted test-retest estimates; however, it is not clear whether these estimates are intra-scorer (same rater and student across time) or inter-scorer (across raters, children, and time) reliability estimates. Further, while the test-retest reliabilities reported range from adequate to excellent, they were calculated using percentage agreement instead of correlations (Demaray & Ruffalo, 1995).

Validity. Content validity was assessed by creating an item pool from multiple social skills instruments, the authors reviewing the scales, and lastly surveying teachers about the clarity and importance of the items. No data were provided supporting criterion-related or construct validity.

Source

The S3 is available for purchase from Slosson Educational Publications, Inc, 538 Buffalo Road, East Aurora, NY 14052. Phone: 716 652-0930; phone: 800-756-7766; http://www.slosson.com/.

Cost

The manual and 50 rating forms can be purchased together for $85.75. When purchased separately the manual costs $37.25, and the rating forms cost $56.25.

Social Competence Questionnaire (SCQ) – Parent and Teacher Forms

Original citation

Spence, S. H. (1980). *Social skills training with children and adolescents: A counselor's manual*. Windsor: NFER Publishing Co.

Purpose

To assess the outcomes of children's and adolescents' social interactions with peers at both home and school in order to design relevant interventions.

Population

Children and adolescents aged 8–18.

Description

This measure is one of six designed to be administered as part of the program entitled *Social Skills Training: Enhancing Social Competence with Children and Adolescents* (Spence, 1995). This program integrates assessment and intervention to improve interpersonal functioning and is designed for use by school professionals and therapists. The SCQ-Teacher form is a 9-item questionnaire that assesses school-based social competence with peers. The SCQ-Parent form is similar, except that it measures home-based social competence with peers. Items lie on a 3-point Likert-type scale ranging from 0 (*Not true*) to 2 (*Mostly true*).

Administration and scoring

The SCQ-Parent and Teacher forms take approximately five minutes to complete. A total score for the SCQ is calculated by adding the numerical ratings and can be compared to the mean and standard deviation values from the normative sample. Higher scores indicate greater social competence.

Psychometric properties

Norms. The SCQ Parent and Teacher forms of the measures were normed on a sample of 313 teachers and 187 parents of children and adolescents aged 8–17 attending Catholic schools in Sydney, Australia.

Reliability. Internal consistency in the normative sample was high with an alpha coefficient of .81 for the Parent form and .95 for the Teacher form. Similar split-half reliabilities were found.

Validity. Although the author states that the same factor structure was found for all the questionnaires, the results of this analysis were not provided in the manual. Construct validity has been demonstrated by the associations among the parent, teacher, and student responses to the questionnaires. Youth with social phobia have been found to score significantly lower on the SCQ-Parent form than matched, nonanxious peers (Spence et al., 1999).

Source

For more information about this measure, contact Susan H. Spence, Gold Coast campus, Griffith University, Gold Coast Campus, QLD 4222, Australia; s.spence@griffith.edu.au.

Alternative form

There is a self-report form of the SCQ (see the Adolescent Self-Report section of this chapter).

Social Skills Rating System (SSRS) – Parent and Teacher Questionnaires (Secondary Level)

Original citation

Gresham, F. M., & Elliott, S. N. (1990). *Social Skills Rating System* [Manual]. Circle Pines, MN: American Guidance Service.

Purpose

To evaluate the social behaviors of adolescents in order to screen for concerns and develop appropriate interventions.

Population

Adolescents in grades 7–12.

Description

The SSRS Parent Questionnaire is a 52-item measure of adolescent social behaviors that is typically completed by an adolescent's parent or guardian. It assesses positive social behaviors along four subscales: Cooperation, Assertion, Responsibility, and Self-Control. The SSRS Teacher Questionnaire is a 51-item measure that is typically completed by an adolescent's teacher or other school personnel who has had at least 2 months of exposure to the student. It assesses positive social behaviors along five subscales: Cooperation, Assertion,

Responsibility, Empathy, and Self-Control. Subscale scores on the questionnaires are combined to make up the Social Skills Scale. In addition, the questionnaires yield three problem behavior subscales (i.e., Externalizing, Internalizing, and Hyperactivity) that are combined to form the Problem Behaviors Scale.

Items on the Parent and Teacher Questionnaire are rated according to their frequency (i.e., how often a behavior occurs) and importance (i.e., how important the behavior is believed to be for successful functioning). The frequency items are rated on a 3-point scale as 0 (*Never*), 1 (*Sometimes*), or 2 (*Very Often*). The importance items are also rated on a 3-point scale as 0 (*Not Important*), 1 (*Important*), or 2 (*Critical*). Items on the questionnaires cover a range of behaviors indicative of adequate social skills, including asking adults for help, compromising during disagreements, giving compliments to others, following directions, and starting conversations with others. Additionally, the Teacher Questionnaire includes an Academic Competence subscale that consists of nine items rated on a 5-point scale ranging from *Lowest 10%* to *Highest 10%*.

Administration and scoring

The SSRS Parent and Teacher Questionnaires require approximately 10–25 min to complete. Both hand scoring and a computer scoring program are available. After completion of the measure, an Assessment-Intervention Record is completed for the adolescent that summarizes his/her strengths and weaknesses. Information is provided for scales, subscales, and items. Standard scores and percentile ranks allow comparisons to populations of same-age peers for the Social Skills and Problem Behaviors scales, and for the Academic Competence scale from the Teacher Questionnaire. Behavior functioning levels are also identified for the scales and subscales, including below average, average, and above average. Low frequency ratings and high importance ratings highlight behaviors that are of concern.

Psychometric properties

Norms. The SSRS was standardized in 1988 on a national sample of 4,170 children between 3 and 18 years of age and 1,027 parents. The sample was stratified by grade and sex and included children from 18 states. Separate norms are available for handicapped and nonhandicapped students, as well as for females and males.

Reliability. Internal consistency coefficients for the Parent Questionnaire range from .83 to .94 for the Social Skills scale and .73 to .88 for the Problem Behaviors scale. Test-retest reliability of the Parent Questionnaire was estimated for the Elementary Level students only and was .87 for the Social Skills scale and .65 for the Problem Behaviors scale.

Internal consistency coefficients for the Teacher Questionnaire range from .93 to .94 for the Social Skills scale, .82 to .86 for the Problem Behaviors scale, and .95 for the Academic Competence scale. Test-retest reliability of the Teacher Questionnaire was estimated for the Elementary Level students only and was found to be .85 for the Social Skills scale, .84 for the Problem Behaviors scale, and .93 for the Academic Competence scale.

Validity. Content, construct, and concurrent validity have been supported by extensive research. The SSRS Parent and Teacher Questionnaires have been shown to accurately discriminate between students with social skills deficits and those with appropriate social skills, as well as those who are handicapped versus those who are not handicapped. The Teacher Questionnaire has also been shown to differentiate students identified as Behavior Disordered or Emotionally Disturbed from those who are not handicapped (Stinnett, Oehler-Stinnett, & Stout, 1989).

Source

The measure is available from Pearson Assessments, P.O. Box 1416, Minneapolis, MN 55440; phone: 800-627-7271; http://www.pearsonassessments.com.

Cost

A variety of related products are available, including a Secondary Level Starter Set for $125 (includes a manual, 10 copies each of Teacher, Parent, and Student Questionnaires, and 10 Assessment-Intervention Records) and a computer scoring program for $259 (includes a software manual and a Macintosh/Windows CD ROM).

Alternative forms

Teacher Questionnaires are available for preschool children (3–4 years), elementary school children (Kindergarten through 6th grade), and secondary school children (7th through 12th grades). Student Questionnaires are available for elementary and secondary school children. Alternate Parent Questionnaires are also available for preschool and elementary school children.

Student Behavior Survey (SBS) Social Skills and Social Problems Subscales

Original citation

Lachar, D., Kline, R. B., Wingenfeld, S. A., & Gruber, C. P. (1995). *Student Behavior Survey*. Los Angeles, CA: Western Psychological Services.

Purpose

The SBS is used to identify emotional and behavioral maladjustment. The authors developed it to be used as a multidimensional assessment along with the Personality Inventory for Children, Second Edition (PIC-2) and the self-report Personality Inventory for Youth (PIY).

Population

Students in grades K through 12 (ages 5–19).

Description

The SBS is a rating scale with 102 items. Responses lie on a Likert-type scale. Items 1–8 refer to areas of achievement and are rated from 1 (d*eficient*) to 5 (*superior*). Items 9–102 measure behavioral frequency and are rated from 1 (*never*) to 4 (*usually*). The SBS consists of 14 subscales within three broad categories: Academic Performance (i.e., Academic Habits, *Social Skills*, Parent Participation), Adjustment Problems (i.e., Health Concerns, Emotional Distress, Unusual Behavior, *Social Problems*, Verbal Aggression, Physical Aggression, Behavior Problems), and Disruptive Behavior (i.e., Attention Deficit Disorder, Oppositional Defiant Disorder, Conduct Disorder). The Social Skills subscale contains eight items (e.g., "listens when other students speak," "Maintains eye contact when speaking"). The Social Problems subscale has 12 items (e.g., "Angers other students," "Criticized by other students").

Administration and scoring

The SBS was developed for teachers or school psychologists to complete in approximately 15 min. Using the SBS profile form, raw scores can be quickly converted to *T*-scores. The authors state that the SBS should be administered only by teachers who have known the students for at least 2 months. Raw scores can be obtained by summing the items on each subscale and the total scale. A norm table in the administration book will convert the raw scores into standardized scores (with a mean of 100 and a standard deviation of 15). These standardized norms are gender-specific and are divided into two age groups: 5–11 and 12–18 years.

Psychometric properties

Norms. The standardization sample consisted of 2,612 regular education students with approximately 200 students assessed within each grade level (i.e., from Kindergarten through grade 12). There were roughly equal numbers of males and females in the sample and the ethnic background of the sample was comparable to U.S. census data. While the measure approximates the U.S. census in terms of ethnicity and gender, it does not in terms of geography. The SBS was also examined within a sample of 1,315 students referred for assessment related to academic and behavioral concerns and therefore included students in special education settings, clinical settings, and juvenile justice settings. There were discrepancies between this sample and U.S. census data (e.g., there were almost twice as many males as females), which may reflect the nature of the referrals.

Reliability. Internal consistency estimates were good and ranged from .84 for the Physical Aggression subscale to .93 for the Academic Habits subscale (Wingenfeld, Lachar, Gruber, & Kline, 1998). Of interest, the internal consistency estimates for the Social Skills and Social Problems subscales ranged from .86 to .88 for both the regular education sample and for the special education sample. Test-retest reliability was examined by having teachers complete the SBS twice for the same students in two samples of adolescents ($N = 49$, $N = 31$, respectively). Test-retest reliabilities for the Social Skills subscale were .74 for the first sample and .97 for the second sample. For the Social Problems subscale, test-retest reliabilities were .58 for the first sample and .84 for the second sample.

Validity. One study found that the SBS is correlated with the PIC-2 scales (11 out of 14 scales have correlations greater than .49), indicating that it has criterion validity (Lachar, 2004). Specifically, the Social Problems subscale of the SBS correlated the highest with the Social Skills subscale of the PIC-2. Further, the authors established that 98 out of 102 items on the SBS statistically discriminated between regular education students and referred students (Lachar, 2004), providing evidence of the measure's discriminant validity.

Source

The measure is available for purchase from Western Psychological Services, 12031 Wilshire Blvd, Los Angeles, CA 90025-1251; phone: 800-648-8857; www.wpspublish.com.

Cost

A variety of purchase options are available, including a starter kit (manual and 25 profile forms) for $95. The profile forms alone cost $40 for a package of 25. There is an optional scoring disk/CD that will score 25 reports for $115.50.

Walker-McConnell Scale of Social Competence and School Adjustment (SSCSA) – Adolescent Version

Original citation

Walker, H. M., & McConnell, S. R. (1995). *The Walker-McConnell Scale of Social Competence and School Adjustment* (*SSCSA*). Austin TX: Pro-Ed. Republished by Belmont, CA: Wadsworth/Thomson Learning.

Purpose

To screen students who are at risk for a range of social-behavioral adjustment problems and identify social skill deficits among adolescents in school.

Population

Adolescents in grades 7–12.

Description

The SSCSA is a brief norm-referenced rating scale with 53 items. Responses lie on a Likert-type scale ranging from 1 (*Never occurs*) to 5 (*Frequently Occurs*). The SSCSA consists of four factorially derived subscales titled Self-Control (12 items), Peer Relations (20 items), School Adjustment (10 items), and Empathy (6 items). The items reflect teachers' ratings of the frequency for which a social skill occurs.

Administration and scoring

The SSCSA-Adolescent Version was developed for teachers who have worked with students for at least 8 weeks to complete in approximately 5 min. Raw scores can be obtained by summing the items on each subscale and the total scale. A norm table in the administration book will convert the raw scores into standardized scores (with a mean of 100 and a standard deviation of 15), which will allow comparisons to general and clinical populations. Each item is positively worded; therefore, higher scores on an item reflect better social skills (e.g., "Takes pride in his/her appearance"). The authors suggest further evaluation of any scale scores that are 1–1.5 standard deviations below the mean.

Psychometric properties

Norms. The normative sample for the adolescent version of the SSCSA was a nationwide sample of approximately 2,215 adolescent students in grades 7–12 (Walker, Stieber, & Eisert, 1991). The sample was divided evenly between females and males and included students in all types of educational settings (e.g., regular classrooms, resource classrooms).

Reliability. Over a 4–6-week period three separate test-retest reliabilities were conducted in adolescent populations, with correlations from .80s to .90s for the total scale and the subscales (Walker et al., 1991). Internal consistency estimates were large and ranged from .91 for the Empathy subscale to .95 for the Peer Relations subscale (Walker et al., 1991). Interrater reliability was .53 between teachers and classroom aides (Walker & McConnell, 1995).

Validity. Discriminant validity was demonstrated by comparing a sample classified as antisocial to a control group on the empathy scale. Similarly, the empathy subscale distinguished between adolescents who had been arrested and adolescents who had not been arrested (i.e., adolescents who had been arrested scored lower on the empathy subscale). Further, the factor structure is similar to the Social Skill Rating System (Gresham & Elliott, 1990) and convergent validity was demonstrated via comparison with the Behavioral and Emotional Strengths Rating Scale (BERS) (Harniss, Epstein, Ryser, & Pearson, 1999).

Source

The measure is available for purchase from Wadsworth, Cengage Learning, P.O. Box 6904, Florence, KY 41022-6904; Phone: 800-354-9706; www.cengage.com/wadsworth/.

Cost

The SSCSA costs $110 for a user's manual, technical manual and 20 profile rating forms.

Alternative forms

There is an elementary version of the SSCSA for grades K through 6.

Waksman Social Skills Rating Scale (WSSRS)

Original citation

Waksman, S. (1983). *Waksman Social Skills Rating Scale*. Test and Manual. Portland, Oregon: Enrichment Press. Republished by Enrichment Press, 1996.

Purpose

To identify clinically significant social skill deficits in children and adolescents. The author states that it is useful in identifying children for social skills programs, as well as to evaluate those programs.

Population

Students grades Kindergarten through 12.

Description

The WSSRS is a brief rating scale with 21 items. Responses lie on a Likert-type scale ranging from 0 (*Never*) to 3 (*Usually*). The measure includes total scores as well as scores in two domains: Passive and Aggressive.

Administration and scoring

The WSSRS was developed for teachers, counselors, and childcare workers who have daily contact with the child or adolescent to complete in approximately 5 min. Subscale and

total scale scores can be turned into percentile scores using the profile table on the rating form. Higher scores (raw and subscale scores) indicate more social skills deficits.

Psychometric properties

Norms. The normative sample for the WSSRS consisted of 331 randomly selected students from 10 schools in Portland, Oregon (Waksman, 1985). The sample was divided evenly between females and males. This normative sample lacks representative geographical diversity, and no data are provided about ethnicity, socioeconomic status, or other information needed to determine whether this sample is representative of the United States population. Other limitations of the sample are that there were small numbers of students included in each grade (e.g., $N = 16$ in grade 9), and only regular classroom students were included.

Reliability. For the normative sample, a 4 week test-retest reliability was .73 for the Aggressive factor and .64 for the Passive factor. In addition, 1 week interval test-retest reliabilities were examined with a sample of middle school students and were .93 for the Aggressive factor and .69 for the Passive factor. Internal consistency estimates were large (.92); however, interrater reliabilities varied widely. Specifically, interrater reliability was moderate (.60) for the aggressive domain and nonexistent (–.09) for the passive domain ($N = 42$).

Validity. The author assessed the measure's correlation with the student's school behavior using the Portland Problem Behavior Checklist-Revised (PPBC-R). The total correlation between the WSSRS and the PPBC-R was .65 (.74 for the aggressive factor and .56 for the passive factor). Further, mean scores of children classified as emotionally disturbed ($N = 39$) were much higher than scores for children in the normative sample, which indicates that the WSSRS may discriminate between these two types of students

Source

The measure is available for purchase from Enrichment Press, 5441 SW Macadam Avenue, Suite 206, Portland, OR 97201; Phone: 503-222-4046; http://homepage. mac.com/rickray/stevewaksman/WSSRS.pdf.

Cost

The manual with 25 male and 25 female rating forms costs $45. The rating forms alone cost $20 for 25 rating forms (male or female).

Vineland Adaptive Behavior Scales, Second Edition — Parent/Caregiver Rating Form

For detailed information regarding this parent-report measure please refer to the Child Ratings by Other section of Chapter 16 (pp. 314–316).

ADOLESCENT ANALOG

Kathryn R. Wilson and Judith A. Jordan

Role-Play Test

Original citation

Van Hasselt, V. B., Kazdin, A. E. Hersen, M., Simon, J., & Mastantuono, A. K. (1985). A behavioral-analytic model for assessing social skills in blind adolescents. *Behavioral Research and Therapy, 23*, 395–405.

Purpose

To empirically identify social skills deficits among visually handicapped persons and to validate behaviors in a comparison of visually handicapped and nonhandicapped persons.

Population

Adolescents, visually handicapped and sighted.

Description

The Role-Play Test (RPT) is a 39-item analogue measure of social skills for adolescents with a visual handicap. Adolescents are read brief scenarios and given a verbal prompt to begin conversation. Scenarios were derived from the input of teachers, child care workers, and physical therapists employed by a school for the blind. Following the verbal prompt, responses to the problematic situation are observed and rated for verbal and nonverbal social skills.

Administration and scoring

The test administrator reads a narrative to the subject and then prompts the subject for a verbal response. The subject's response is observed and coded. The administrator then provides a second prompt. The subject's response is again observed and coded. Aides are used as role-play partners in some situations.

Each item is scored and interpreted independently. Verbal and nonverbal social skill components are assessed. Degree of social skill is ranked on a 7-point Likert-type scale, from 1 (*not skillful at all*) to 7 (*extremely skillful*). There is no overall score.

Psychometric properties

Norms. No normative data are provided in the original citation.

Reliability. Subjects' performances were rated from videotapes for verbal behavior (i.e., speech duration, speech latency, speech disturbances, requests for new behavior, compliance,

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praise, appreciation, speech intonation, hostile tone, and spontaneous positive behavior) and nonverbal behaviors (i.e., direction of gaze, smiles, physical gestures, stereotypic behaviors, and posture). Interrater reliabilities were uniformly high for all subjects ($r = 0.81$–0.90), and percentage agreement ranged from 84 to 99 for all ratings calculated.

Validity. One argument for the construct validity of the RPT is that it demonstrated visually handicapped subjects to have significantly fewer social skills in role-play situations than the sighted subjects on both verbal and nonverbal behaviors.

Source

For more information about this measure, contact Vincent B. Van Hasselt, Nova Southeastern University, 3301 College Avenue, Ft. Lauderdale, FL 33314; vanhasse@nova.edu.

Alternative forms

Of the 39 items, 19 are considered to be appropriate for both visually impaired and sighted persons. Items can be used with sighted or visually handicapped individuals. All 39 items can be used with visually handicapped individuals.

Scale of Job-Related Social Skill Knowledge

Original citation

Bullis, M., Nishioka-Evans, V., Fredricks, H. D., & Davis, H. C. (1993). Identifying and assessing the job-related social skills of adolescents and young adults with emotional and behavioral disorders. *Journal of Emotional & Behavioral Disorders, 1*, 236–250.

Purpose

To measure the social skill knowledge of individuals with emotional and behavioral disorders (EBD) in work settings.

Population

Adolescents and young adults, ages 15–25, with emotional and behavioral disorders.

Description

Fifty-six social interaction vignettes are used to assess social skill knowledge in the work place. Vignettes are divided into interactions with supervisors ($n = 32$) and coworkers ($n = 24$). For example, "Carol's boss told her to do several jobs, but Carol had some other work to do first and didn't get to what her boss had told her to do. Later the boss got angry and told her to do what she had been told right away. Carol thought this was unfair because she had been working hard. If you were in a situation like this, what are all the things you could say or do?"

Administration and scoring

The SSSK is administered as an individual, verbal role-play. Each vignette is read to the participant by the test administrator. The participant's role-play responses are recorded. After the entire measure is administered, individual items are scored. Measure administration takes approximately 1.5 h.

Items are scored on a 3-point Likert-type scale with anchors of 1 (*Ineffective Response*), 2 (*Fairly Effective Response*), and 3 (*Effective Response*). Scores are totaled in each section such that the participant receives two scores, one score for social skill knowledge with supervisors, and one for social skill knowledge with coworkers.

Psychometric properties

Norms. Psychometric data were obtained from field testing of 215 persons at 13 different sites. The norming group was 76% male and 24% female. Fifty-nine percent were labeled EBD, 47% had been arrested at least once, and 36% had a history of placement in a residential or correctional facility. Average verbal IQ was 87.83 ($SD = 16.44$), and average performance IQ was 93.56 ($SD = 16.90$).

Reliability. Completed SSSKs were scored by four trained judges. The average inter-judge reliability for each item for the work supervisor section was 0.90, and 0.91 for the coworker section. The average item-total correlations for the supervisor and coworker sections were .34 and .38, respectively. As such, both subtests fell within the desired range of .2–4. The internal consistency for the measure and both subtests was greater than .80.

Validity. The validity of the SSSK was measured by correlations with demographic variables and by group membership prediction and discrimination. The measure was significantly positively correlated with gender and EBD classification (females and older persons scored higher; persons classified as EBD scored lower). The measure also discriminated among vocational education students without disabilities, mainstream special education students who were not EBD, students with EBD in mainstream settings, and students with EBD in residential or correctional facilities. It did not discriminate between vocational education students without disabilities and persons without EBD in residential or correctional facilities.

Source

For more information about this measure, contact Michael Bullis, Department of Special Education and Clinical Sciences, College of Education, University of Oregon, Eugene, OR, 97403-5261; bullism@uoregon.edu.

Test of Community-Based Social Skill Knowledge

Original citation

Bullis, M., Bull, B., Johnson, P., & Johnson, B. (1994). Identifying and assessing community-based social behavior of adolescents and young adults with EBD, *Journal of Emotional & Behavioral Disorders, 2*, 173–188.

Purpose

To evaluate social skills of emotionally and behaviorally disordered adolescents and young adults.

Population

Adolescents and young adults, ages 15–25, with emotional and behavioral disorders (EBD).

Description

The Test of Community-based Social Skill Knowledge (TCSK) is a 55-item analogue measure that assesses the social skills of adolescents and young adults. There are 29 items that specifically assess peer interactions, and 26 that assess adult interactions. An example item is as follows: "You like a girl and want to ask her out. One night you are at a party with a group of people, including the girl you like. You are feeling very nervous and think the others will make fun of you if you ask her out. Which response is most like what you would actually say or do in this situation? (**a**) Forget about the girl. (**b**) Talk to a friend about asking the girl out for you. (**c**) Ask the girl out in front of the others. (**d**) Call her on the phone when you get home."

Administration and scoring

The TCSK is administered as a verbal role-playing measure. A test administrator reads test item stems, along with four possible alternatives that are of varying degrees of effectiveness, to the participant. One of the choices is considered to be effective, another to be fairly effective, and two are considered ineffective responses. The participant's responses to the vignettes are recorded. The administrator then rates the appropriateness of the response. The measure takes approximately 1 h to administer.

Items are scored on a 3-point Likert-type scale with anchors of 0 (*Ineffective Response*), 1 (*Fairly Effective Response*), and 2 (*Effective Response*). Of the two ineffective response choices given as alternatives, one is representative of an aggressive or externalizing response to the situation, and the other represents a passive or internalizing response. Items can be divided into two scales, one for peer interaction and one for adult interaction.

Psychometric properties

Norms. The TCSK was field tested in a study of 1,093 adolescents (mean age 17.5 years) at 15 sites, representing six states, mainstream and alternative schools, residential programs and correctional facilities. A comparison group of 63 undergraduate students was also assessed. The original article provides data for male and female youth, taking into consideration whether an EBD was present and prior arrest history.

Reliability. Reliability of the measures was judged acceptable. Item–total correlations were reported to be in the desired range of .2–.4, and to have internal consistency of greater than .75 for both the peer and adult sections. For the male version only the test-retest reliability was below .75; for the female version, all reliability indices were above .75.

Validity. Youth with EBD or an arrest record were less socially skilled than those without EBD or those who had not been arrested. High levels of social skills were found to be correlated with low levels of antisocial behaviors. The measure was able to differentiate among comparison, EBD, and arrested groups.

Source

For more information about this measure, contact Michael Bullis, Department of Special Education and Clinical Sciences, College of Education, University of Oregon, Eugene, OR, 97403-5261; bullism@uoregon.edu.

Alternative forms

Male and female versions are available given that some vignettes are oriented to men and others to women. The TCSK is divided into two subsections, one which assesses interactions with peers, and the other which assesses interactions with adults.

ADOLESCENT OBSERVATION

Judith A. Jordan and Amanda M. Kras

Family and Peer Process Code

Original citation

Stubbs, J., Crosby, L., Forgatch, M., & Capaldi, D. M. (1998). *Family and Peer Process Code training manual: A synthesis of three Oregon Social Learning Center behavior codes.* Unpublished training manual, Oregon Social Learning Center.

Purpose

To examine behaviors during family and peer interactions.

Population

Families, preadolescent and adolescent peers, and young couples.

Description

The Family and Peer Process Code (FPPC) is an observational coding system that assesses behaviors during family and peer interactions. The FPPC is an amalgamation of three behavior codes previously developed at the Oregon Social Learning Center: the Family Process Code, the Peer Process Code, and the Interpersonal Process Code. The FPPC examines four dimensions during interactions: activity, withdrawal qualifier, content, and affect.

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The activity code, which refers to the setting of the interaction, is subdivided into six categories: work, play, read, eat, attend, and unspecified. The withdrawal qualifier refers to absence or presence of withdrawal behavior. The content code describes the individual's behavior over the course of the interaction. There are 24 content codes: eight positive, nine negative, and seven neutral. The content codes are further divided into verbal, vocal, nonverbal, physical, and compliance behaviors. Finally, the affect code consists of six ratings: happy, caring, neutral, distress, aversive, and sad. Affect ratings are provided for each content code.

Administration and scoring

Behavior codes are either made during live observations or by watching videotaped interactions. Live observations are generally conducted in the home setting. These sessions consist of a series of trials, with each individual serving as the focal subject for a trial. Behavioral ratings are only recorded for the interactions of the focal individual. The number of trials held and the length of the trials can vary. Activity codes are recoded using Portable Data Terminals or computer keyboards, with only one activity being recorded at a time. For families, peers, or couples who complete the interactions in the lab setting, a series of time-limited tasks are completed in a specific order. The nature of the tasks can vary depending upon the research hypotheses in question. Activity codes are not used for lab sessions.

Activity codes range from 1 to 6, with each number representing a different activity (e.g., 3 = eat). Content codes and emotional valence ratings are recorded simultaneously, with five-digit code entries being made for each interaction. The first digit, ranging from 1 to 8, identifies the initiator of the behavior (e.g., 1 = male target child). The second and third digits, ranging from 01 to 93, indicate the content of the behavior (e.g., 22 = Tease). The fourth digit, ranging from 0 to 9, identifies the recipient of a given behavior (e.g., 0 = objects or household pets). The fifth digit, ranging from 0 to 6, indicates the emotional valence of the behavior (e.g., 1 = happy). The withdrawal qualifier is used independent of the content codes to categorize whether or not a person's behavior constitutes withdrawal behavior (e.g., failure to respond). The manual provides guidelines, including examples, nonexamples, and decision rules, for the various codes.

Psychometric properties

Norms. The FPPC has been used to examine the interactions of individuals during preadolescence (ages 9–12), adolescence (ages 13–19), young adulthood (20–23), and early adulthood (ages 23–26). The majority of the studies to date using the FPPC have examined the interactions of peers and/or couples.

Reliability. The reliability standards provided for coding videotaped interactions using the FPPC include a reliability check of 15% of the sample using randomly selected tapes. The standards for coding lab interactions are as follows: content = 75% agreement, content kappa = .65, affect = 75% agreement, and affect kappa = .65. The standards for coding home observations are as follows: content = 70% agreement, content kappa = .55, affect = 75% agreement, and affect kappa = .55. Studies using the FPPC have found the observation system to have good reliability, with interrater agreement and kappas all being above the recommended standards (Capaldi, Dishion, Stoolmiller, & Yoerger, 2001; Kim & Capaldi, 2004; Shortt, Capaldi, Kim, & Owen, 2006).

Validity. Although the validity of the FPPC has not been expressly established, individual studies utilizing this coding system have found significant correlations between particular codes and portions of other measures of relevant constructs (e.g., physical and psychological

aggression), suggesting the presence of some basic construct validity (Kim & Capaldi, 2004; Shortt et al., 2006).

Source

The FPPC can be downloaded from http://www.oslc.org/resources/codingsystems.html. The Oregon Social Learning Center may be contacted at 10 Shelton McMurphey Blvd., Eugene, OR 97401; phone: 541-485-2711.

Cost

The manual and coding software are available on the web site free of charge.

Alternative forms

As noted above, the FPPC was developed based on three observational systems previously developed at the Oregon Social Learning Center: the Family Process Code, the Peer Process Code, and the Interpersonal Process Code. Each of these coding systems can be found at the Oregon Social Learning Center website. The Family Process Code examines family interactions, the Peer Process Code examines peer interactions, and the Interpersonal Process Code examines interactions across contexts and interactants.

Social Competence Scale

Original citation

Englund, M. M., Levy, A. K., Hyson, D. M., & Sroufe, L. A. (2000). Adolescent social competence: Effectiveness in a group setting. *Child Development, 71*, 1049–1060.

Purpose

To measure social competence in adolescents within their peer group.

Population

Adolescents aged 15 and 16 were used in the original sample.

Description

The Social Competence Scale is a measure that assesses social competence in adolescents within their peer group based on a revealed differences problem-solving task. The scale assesses adolescents' overall effectiveness with their peers in the context of this given task.

The Social Competence Scale was developed as part of a study that used observation-based scales to assess social competence in group settings. It was developed in combination with scales tapping into enjoyment of task, involvement in task, leadership in task, and self-confidence. Each of these scales has its own measure assessing its corresponding area of social competence. The overall Social Competence Scale was developed as a global measure of social competence among adolescents in their peer groups.

Administration and scoring

In the original study, four groups were formed, each consisting of 3–4 same-sex adolescents. Each group was given the task of deciding how to spend $150. Once the group decided, they were brought together with another same-sex group of the same gender to complete the same process. Once in agreement for the second time, the two larger same-sex groups (i.e., one all boys and one all girls) were brought together to again determine how to spend the money. During each phase, a spokesperson was nominated to present their decision. All of the tasks were videotaped.

The Social Competence Scale is scored on a 5-point scale. Each individual is rated by two separate raters who assign a single score based on the individual's behaviors in both the small and combined same-gender groups. An individual who receives a score of 1 is considered to have low social competence, and appears incompetent in the problem-solving situations and does not interact effectively with other group members. An adolescent who scores a 2 appears to have difficulty interacting with his or her peers but is neither totally rejected nor isolated. A score of 3 represents moderate social competence; the individual may be effective at times, but ineffective at others. An individual who receives a score of 4 is considered to be skilled at interacting with peers; the adolescent is not rejected but is not considered to have contributed significantly to the problem-solving task. A score of 5 indicates high social competence; the individual is engaged in the task and involved in the discussion, and others respect the individual's opinions.

Psychometric properties

Norms. The measure was used with a sample of 40 youth (21 males, 19 females). The mean score (and standard deviation) on the Social Competence Scale was 3.63 (*SD* 1.24) for 16 adolescents who were classified as having been securely attached as an infant. The mean score (and standard deviation) for 14 adolescents classified as having been insecurely attached as an infant was found to be 2.31 (*SD* 1.14).

Reliability. Interrater agreement was calculated using the Pearson product-moment correlation coefficient. The Social Competence Scale had a correlation of .78 between the two raters. Exact agreement and agreement within one point were .50 and .97, respectively.

Validity. To assess concurrent validity, the Social Competence Scale was compared to other measures used to assess peer competence as part of the study. When examining independent rankings of social competence, all correlations with the Social Competence Scale were .59 and higher. The Social Competence Scale was also significantly correlated with positive peer nomination (.56). Counselor and peer judgments of competence, social skills, and popularity were most strongly correlated with the Social Competence Scale.

When examining discriminant and construct validity, moderate correlations were obtained between middle childhood (i.e., 10 years of age) measures of peer competence and the Social Competence Scale; the Social Competence Scale was significantly correlated with counselor rankings and independent behavioral observation in middle childhood. In addition, the Social Competence Scale was significantly correlated (.37) with preschool teacher ratings of social skills with peers at 4.5 years. Also, when comparing current social competence using the Social Competence Scale to attachment styles assessed in infancy, those adolescents classified as insecure as an infant scored significantly lower on the Social Competence Scale than those adolescents classified as having been securely attached as an infant.

Source

For more information about this measure, contact Michelle Englund, Early Childhood Research Collaborative, University of Minnesota, Minneapolis, MN 55455; englu008@umn.edu.

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Chapter 18
Adult Measures

Preface

Peter J. Norton

As noted in Chapter 6, empirically based measures for assessing social skills in adults have primarily utilized self-report and analogue observational assessment approaches. Meier and Hope (1998) have described a sample clinical interview approach to assessing social skills but, to date, no data have been collected supporting the reliability or validity of this measure. Although observation systems are frequently used in assessing social competence, few of these use naturalistic approaches for adults due to the ethical constraints and potential reactivity effects of collecting naturalistic observations. Some observational assessment systems could be considered naturalistic in that assessments are regularly recorded during daily activities in inpatient units (e.g., Paul, 1984), although such systems seldom specifically assess social skills. Similarly, some (e.g., Segrin, 1998) have collected surreptitiously gathered video recordings of waiting room behavior as an index of naturalistic behavior, although the ethics of collecting these data in clinical practice is questionable. Clinicians desiring to conduct an assessment of social skills under more naturalistic conditions may wish to consult Bellack, Morrison, Mueser, Wade, and Sayers (1990), Curran (1982), Frisch and Higgins (1986), Gorecki, Dickson, Anderson, and Jones (1981), Kern (1991a), Merluzzi and Biever (1987), St. Lawrence, Kirksey, and Moore (1983), and Wessberg, Marriotto, Conger, Farrell, and Conger (1979) for examples of how naturalistic observations of social skills have been conducted in research protocols. Given the paucity of validated peer or other report, clinician interview, and naturalistic observation assessments, the bulk of this chapter provides descriptions of evidence-based self-report measures and analogue observational schemes for assessing social skills in adults.

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ADULT SELF REPORT

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Assertion Inventory (AI)

Original citation

Gambrill, E. D., & Richey, C. A. (1975). An assertion inventory for use in assessment and research. *Behavior Therapy, 6*, 550–561.

Purpose

To collect three types of information regarding assertive behavior: the degree of discomfort in relation to specific situations, the judged probability of engaging in assertive behavior, and identification of situations in which a person would like to be more assertive.

Description

This scale consists of 40 items that assess how individuals respond in, and feel about, assertive situations, including their degree of discomfort, their probability of engaging in certain behaviors, and situations they would like to handle more assertively. Scores allow characterization of respondents as "unassertive," "assertive," "anxious performer," or "doesn't care." The items fall into one of 8 categories: turning down requests, expressing personal limitations, initiating social contacts, expressing positive feelings, handling criticism, differing with others, assertion in service situations, and giving negative feedback.

Administration and scoring

For each item, respondents are asked to make three indications: (a) the degree of discomfort or anxiety that they would experience in the situation on a 5-point scale from 1 (*none*) to 5 (*very much*), (b) the probability that they would display the behavior if in the situation on a 5-point scale from 1 (*always do it*) to 5 (*never do it*), and (c) the situations in which they would like to be more assertive. Discomfort and response probability scores are computed by adding responses on each dimension. Difference scores can be calculated by subtracting discomfort from response probability. If response probabilities scores are above 104 (indicating a low probability of responding) and discomfort is above 95 (indicating high discomfort), respondents are classified as unassertive. If response probability is below 105 and discomfort is above 95, respondents are classified as anxious-performers. If response probability is above 104 and discomfort is below 96, respondents are classified as doesn't care. If response probability is below 105 and discomfort is below 96, respondents are classified as assertive.

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Psychometric properties

Sample scores and norms. The original source (Gambrill & Richey, 1975) gives normative data from several samples. For 313 undergraduates (116 males), mean discomfort ratings were $M = 95.61$ ($SD = 19.93$), while mean response probability ratings were $M = 104.3$ ($SD = 15.70$). Among 19 women seeking assertiveness training, pretreatment discomfort ratings were $M = 107.7$ ($SD = 22.37$) and response probability ratings were $M = 104.8$ ($SD = 22.55$), while post-treatment discomfort and response probability ratings were $M = 82.0$ ($SD = 19.49$) and $M = 87.9$ ($SD = 20.09$), respectively.

Reliability. Gambrill and Richey (1975) reported that the measure has high test-retest reliability ($r = .81$ to $.87$) among college students.

Validity. Gambrill and Richey (1975) found that after assertiveness training for 19 women requesting services, more individuals who had received the training were placed in the assertive category by the AI than were those in the general population, giving evidence for the criterion validity of the AI. A sample seeking help with assertiveness demonstrated a decrease in both discomfort and response probability on AI facet scores after assertiveness training, while a sample of college students, who were presumed to possess normal levels of assertiveness, did not demonstrate such changes in discomfort and response probability. Several other studies have also found that scores on the AI improved after assertiveness training (Alden, Safran, & Weideman 1978; Safran, Alden, & Davidson, 1980). The AI is also able to reflect differences seen in role-play situations. Noncollegiate adults classified as high assertive on the AI were rated as more assertive in role-play situations by observers than were individuals classified as low assertive (Pitcher & Meikle, 1980)

In addition, with respect to validity, a factor analysis generated 11 factors accounting for 61% of the variance of the AI: Initiating interaction, Confronting others, Giving negative feedback, Responding to criticism, Turning down requests, Handling service situations, Resisting pressure to alter one's consciousness, Engaging in "happy talk", Complimenting others, Admitting personal deficiencies, and Handling a bothersome situation (Gambrill & Richey, 1975). The authors interpreted this as supporting the situational specificity of unassertive behavior.

Source

The AI can be found reprinted in full in its original source (Gambrill & Richey, 1975) and in Appendix B. Further information about the AI may be obtained from the author: Eileen D. Gambrill, Ph.D., School of Social Welfare, University of California, 207 Haviland Hall #7400, Berkeley CA 94720-7400, USA; (tel) 510-642-4450; (fax) 510-643-6126; (e-mail) gambrill@berkeley.edu.

Cost

There is no cost for this measure.

Assertion Self-Statement Test (ASST) and Assertion Self-Statement Test-Revised (ASST-R)

Original citations

Schwartz, R. M., & Gottman, J. M. (1976). Toward a task analysis of assertive behavior. *Journal of Consulting and Clinical Psychology, 44*, 910–920.

Heimberg, R. G., Chiauzzi, E. J., Becker, R. E., & Madrazo-Peterson, R. (1983). Cognitive mediation of assertive behavior: An analysis of the self-statement patterns of college students, psychiatric patients, and normal adults. *Cognitive Therapy and Research, 7*, 455–463.

Purpose

To assess the frequency with which people think in ways that either facilitate or inhibit assertive behavior.

Description

The ASST originally comprised 17 positive self-statements that facilitate refusal behavior (e.g., "I was thinking that this request is an unreasonable one") and 17 negative self-statements that inhibit refusal behavior (e.g., "I was thinking that it is better to help others than to be self-centered"). When Heimberg et al. revised the measure in 1983 to form the ASST-R, they reduced the total number of self-statements from 34 to 24 (12 positive and 12 negative self-statements) and broadened the self-statements to apply not only to refusal situations but to a wider variety of situations in which assertive behavior would be appropriate.

Administration and scoring

Respondents are asked to rate each statement on a scale indicating how frequently the statements characterize their thoughts in certain situations. Frequency response choices range from 1 (*hardly ever*) to 5 (*very often*). Scores from the positive and negative items are summed to obtain aggregate positive and negative self-statement scores.

Psychometric properties

Sample scores and norms. Sample scores and norms for this measure are not currently available. However, research has found that psychiatric inpatients, college students, and nonclinical adults classified as high in assertiveness using the Wolpe-Lazarus Assertiveness Schedule (Wolpe & Lazarus, 1966), showed significantly greater differences in the number of positive and negative self-statements generated, with more positive self-statements than negative, than did those low in assertiveness (Heimberg et al., 1983).

Reliability. For the ASST, internal consistency coefficients are typically around $\alpha = .78$ (Bruch, Haase, & Purcell, 1984). For the ASST-R, the internal consistency for both the negative self-statements subscale ($\alpha = .89$) and the positive self-statements subscale ($\alpha = .80$) appear adequate (Arrindell et al., 2005).

Validity. As the self-statements that make up the items for this measure are thought to facilitate or inhibit assertive behavior, several studies have given evidence for the convergent validity of the ASST and ASST-R by finding that scores on this scale are related to scores on measures of assertiveness. Significant differences were found on negative and positive self-statements subscales between those grouped as high, moderate, and low assertiveness based on the Conflict Resolution Inventory (Schwartz & Gottman, 1976). Those in the high assertive groups had more positive self-statements than low assertive individuals, as well as more positive self-statements than negative ones. In fact, nonassertive subjects have higher negative self-statement scores than assertive subjects, regardless of the sample (adults, students, patients; Heimberg et al., 1983), indicating that the measure is both generalizable and

convergent with other measures of assertiveness. Pitcher and Meikle (1980) also found that negative self-statements were associated with lower assertiveness on several other measures.

Heimberg et al. (1983) found that negative self-statement scores discriminated among those who were categorized as low or high on the Wolpe-Lazarus Assertiveness Schedule, but positive self-statements did not. Similarly, Arrindell et al. (2005) found that all of the distress subscales on the Scale of Interpersonal Behavior correlated highly with the negative self-statement subscale on the ASST-R but generally not with the positive self-statement scale. These findings suggest that the positive self-statement subscale may be a less valid measure of interpersonal behavior than the negative self-statement subscale.

Using a 32-item version of the original ASST, Bruch et al. (1984) found 3 factors accounting for almost 44% of the total variance. Factor 1 included 11 items implying concern with the negative emotional consequences resulting from either the display of unpleasant emotions or from negative evaluations made of the individual by the opponent. Factor 2 includes 14 items, all implying active evaluation processes focused on examining reasons for refusal. The third factor, consisting of 7 items, has a theme of morality. This indicates that the factor structure may be more complex than originally assumed.

Source

A 32-item version of the original ASST can be found reprinted in Bruch et al. (1984) and is included in Appendix B. Further information about the ASST-R may be obtained from the author: Richard G. Heimberg, Ph.D., Temple University, 1701 North 13th Street, 419 Weiss Hall, Philadelphia, PA, 19122-6085, USA; (tel) (215) 204-7489; (email) heimberg@temple.edu.

Cost

There is no cost for this measure.

Dating and Assertion Questionnaire (DAQ)

Original citation

Levenson, R. W., & Gottman, J. M. (1978). Toward the assessment of social competence. *Journal of Consulting and Clinical Psychology, 46*, 453–462.

Purpose

To assess an individual's abilities in dating and assertion situations.

Description

This scale consists of 18 items, one half focusing on behavior in dating situations and the other half focusing on assertive situations.

Administration and scoring

The DAQ is broken into two sections comprised of nine items each. On the social assertion portion, given first generally, participants rate on a 1 (*I never do this*) to 4 (*I do this*

almost always) scale the frequency with which they perform certain activities. In the dating skills portion, situations are given and participants are asked to rate how they would feel in each situation on a 1 (*I would be so uncomfortable and so unable to handle this situation that I would avoid it if possible*) to 5 (*I would feel very comfortable and be able to handle this situation very well*) scale. Item responses from each portion of the test are averaged to form the assertion and dating subscales.

Psychometric properties

Sample scores and norms. The measure was normed on 46 college students who requested assertiveness training and 46 students requesting help with dating skills (Levenson & Gottman, 1978). The dating group had a mean of 1.95 on the dating items and 2.45 on the assertion items. The assertion group had means of 2.91 and 2.48 on the dating and assertion items, respectively. Standard deviations were not reported.

Reliability. Levenson and Gottman (1978) found that the DAQ has a test-retest reliability of $r = .71$ for the assertion subscale and $r = .62$ for the dating subscale. The internal consistency was found also to be high for both dating and assertion items ($\alpha = .92$ and $\alpha = .85$, respectively).

Validity. Levenson and Gottman (1978) focused on the criterion validity of the measure by comparing students who requested assertion skills training or dating skills training and normal students. The assertion and dating subscales were able to discriminate between these two types of participants. Also, when one set of skills (dating or assertion) was focused upon and retested 8 weeks later, scores on that subscale had improved more than scores on the other subscale. Faulstich, Jensen, Jones, Calvert, and Van Buren (1985) found moderate relationships between observer ratings of men's interaction skills with women and self-reported assertiveness ($r = .31$) and dating skills ($r = .20$) on the DAQ.

The DAQ does appear to correlate with more general measures of social skills, such as the Interpersonal Competence Questionnaire (ICQ; Buhrmester, Furman, Wittenberg, & Reis, 1988). Buhrmester et al. (1988) found that the ICQ correlated in the predicted direction with both dating subscale, $r = .68$, and the assertion subscale, $r = .64$, of the DAQ. Convergent validity was also examined by Lesure-Lester (2001) with a multicultural sample. The dating and social assertion subscales were both negatively related to social anxiety. As this study reported consistent results across ethnic groups, the applicability of the DAQ to various populations was also supported.

Source

The DAQ items are reprinted in full in Levenson and Gottman's (1978) article and in Appendix B. Further information about the DAQ may be obtained from the author, Robert Levenson, Ph.D., Department of Psychology, University of California, 3415 Tolman Berkeley, CA, 94720-1650, USA; (tel) 510-642-2055; (fax) 510-643-9334; (e-mail) boblev@socrates.berkeley.edu.

Cost

There is no cost for this measure.

Interpersonal Competence Questionnaire (ICQ)

Original citation

Buhrmester, D., Furman, W., Wittenberg, M. T., & Reis, H. T. (1988). Five domains of interpersonal competence in peer relationships. *Journal of Personality and Social Psychology, 55*, 991–1008.

Purpose

To measure social skills across several domains.

Description

The ICQ contains 40 items, each describing a common interpersonal situation. Five skill domains are assessed: initiating relationships, disclosing personal information, providing emotional support, negative assertion, and conflict management.

Administration and scoring

Respondents are asked to rate their perceived performance in each situation on a 5-point scale where endpoints ranged from "I'm poor at this; I'd feel so uncomfortable and unable to handle this situation, I'd avoid it if possible" to "I'm extremely good at this; I'd feel very comfortable and could handle this situation very well." In the original study (Buhrmester et al., 1988), respondents rated their reactions separately for same-sex friends and opposite-sex dating or romantic partners. However, the data suggested that the same information was obtained if individuals were asked to rate their skills with interaction partners in general. Scores for each of the 5 factors are derived by averaging the scores on the 8 items composing each factor.

Psychometric properties

Sample scores and norms. In Buhrmester et al.'s (1988) original study using the ICQ, undergraduate students from two large state universities completed the measure. The authors reported means and standard deviations for each subscale of the ICQ, for men and women separately interacting with romantic partners and friends: Initiation – men (friends $M = 3.20$, $SD = 0.79$; partners $M = 3.56$, $SD = 0.66$), women (friends $M = 3.03$, $SD = 0.70$; partners $M = 3.63$, $SD = 0.66$); Negative Assertion – men (friends $M = 3.22$, $SD = 0.68$; partners $M = 3.46$, $SD = 0.67$), women (friends $M = 3.34$, $SD = 0.77$; partners $M = 3.43$, $SD = 0.68$); Disclosure – men (friends $M = 3.25$, $SD = 0.70$; partners $M = 3.20$, $SD = 0.62$), women (friends $M = 3.17$, $SD = 0.70$; partners $M = 3.41$, $SD = 0.67$); Emotional Support – men (friends $M = 4.00$, $SD = 0.61$; partners $M = 3.99$, $SD = 0.59$), women (friends $M = 4.23$, $SD = 0.58$; partners $M = 4.31$, $SD = 0.53$); Conflict Management – men (friends $M = 3.50$; $SD = 0.56$; partners $M = 3.49$, $SD = 0.57$), women (friends $M = 3.41$, $SD = 0.62$; partners $M = 3.55$, $SD = 0.56$).

Reliability. Across each factor, internal consistency estimates were in the range of $\alpha = .77$ to .87 (Buhrmester et al., 1988; Koesten, 2004). Four-week test-retest reliability was in the $r = .69$ (conflict management) to $r = .89$ (initiation of relationships) range. Scale scores were moderately correlated across factors, ranging from $r = .26$ to .54 with a mean correlation of $r = .43$ between factors (Buhrmester et al., 1988). Correlations between social skills ratings

for romantic partners and for friends was high, in the $r = .68$ to .84 range, indicating consistent self-reported social skills across types of interaction partners. If all 16 items from both types of interaction partners were included in each domain's calculation, the coefficient alpha was raised to the range of $\alpha = .86$ to .91.

Validity. The original study intensely examined the ICQ's concurrent and construct validity. ICQ scores correlated with scores on measures of dating skill ($r = .68$), dating frequency ($r = .35$), perceived popularity ($r = .46$), dating initiation ($r = .31$), and assertion ($r = .64$; Buhrmester et al., 1988). They also correlated significantly with self-reported anxiety, depression, and loneliness ($r = .32$ to .50). Correlations between the Social Skills Inventory (Riggio, 1989) and the ICQ's domains ranged from $r = .42$ to .70. Conversation-oriented family communication patterns showed small to moderate positive correlations with all five domains of communication competency with same-sex friends (Koesten, 2004). Those growing up in a conversation-oriented environment were more likely to report having this skill in a same-sex friendship. Interpersonal competence was also shown to be positively correlated with recall of a confederate's ideas (Miller & deWinstanley, 2002).

Correlations between self-rated skills and roommate-rated skills ranged from $r = .25$ to .37 on the factors (Buhrmester et al., 1988). Gudleski and Shean (2000) also found significant correlations between self-ratings and roommate ratings with nondepressed students. Discriminant validity is also indicated to be present as self-rated skills and roommate-rated skills for each subscale were higher than with other subscales (Buhrmester et al., 1988)

Confirmatory factor analyses supported the breakup of the ICQ into five dimensions of competence such that each domain measures a separate type of interpersonal competence.

Giving evidence for the criterion validity of the ICQ, elderly patients diagnosed with schizophrenia scored significantly lower than did controls on initiation, provision of emotional support, and conflict management (Semple et al., 1999). Negative symptoms were inversely related to interpersonal competence, whereas emotional support from others and a positive appraisal coping style both were positively associated with interpersonal competence. Self-reported interpersonal competence at intake predicted significant variance in chronic interpersonal stress at 1 year, even when prior chronic interpersonal stress and concurrent psychopathology were controlled (Herzberg et al., 1998).

Alternative forms

Buhrmester et al. (1988) suggested using only the 4 most reliable items from each subscale to form a shortened version of the ICQ with only 20 items. The ICQ has been translated into French (Theriault, 1997).

Source

The ICQ is reprinted in full in Buhrmester et al.'s (1988) article and in Appendix B. Further information about the ICQ may be obtained from the author, Duane Buhrmester, Ph.D., School of Behavioral and Brain Sciences, University of Texas at Dallas, P.O. Box 830688, GR41, Richardson, TX 75083-0688, USA; (tel) 972-883-2352; (fax) 972-883-2491; (e-mail) buhrmest@utdallas.edu.

Cost

There is no cost for this measure.

Inventory of Interpersonal Problems (IIP)

Original citation

Horowitz, L. M., Rosenberg, S. E., Baer, B. A., Ureño, G., & Villaseñor, V. S. (1988). Inventory of Interpersonal Problems: Psychometric properties and clinical applications. *Journal of Consulting and Clinical Psychology, 56*, 885–892.

Purpose

To help patients and therapists identify interpersonal sources of distress that are often the focus of psychotherapy.

Description

The IIP is made up of 127 items that each describes types of interpersonal problems people may experience. Items are organized into two sections corresponding to the most common ways that patients express complaints during an intake interview. The scale is made up of 6 subscales that were created through factor analyses: assertiveness, sociability, intimacy, submissiveness, responsibility, and controllingness.

Administration and scoring

There are 78 items in the first section that begin with the phrase, "It is hard for me to," and 49 items in the second section that begin with the phrase, "These are things I do too much." Respondent are asked to consider each problem and to rate how distressing that problem has been on a scale ranging from 0 (*not at all*) to 4 (*extremely*). Subscale scores are calculated by averaging the ratings of items in that particular subscale. Forty-four items are not included in any subscales but are retained because they describe problems that are frequently discussed in treatment. The overall score is calculated by averaging all item ratings.

Psychometric properties

Sample scores and norms. Horowitz, Rosenberg, Baer, Ureño, & Villaseñor (1988) asked 103 individuals receiving outpatient therapy to complete the IIP with a resulting overall score of $M = 1.48$ ($SD = 0.56$).

Reliability. Internal consistency estimates ranged from $\alpha = .82$ to .93 on the subscales in the original study (Horowitz et al., 1988), indicating good internal consistency. Test-retest reliability was $r = .98$.

Validity. Concurrent and convergent validity has been supported. Horowitz et al. (1988) found that the subscales were moderately correlated with general measures of psychological functioning, such as the SCL-90R ($r = 39$ to .56). Pilkonis, Kim, Projetti, and Barkham (1996) found that scores on the IIP could inform the diagnosis of certain personality disorders. Horowitz et al. (1988) reported that the IIP correlates appropriately with the corresponding interpersonal traits of other specific scales of interpersonal abilities while still showing considerable discriminant capability.

Studies have also demonstrated that the IIP is sensitive to clinical improvement in brief psychodynamic therapy (Horowitz et al., 1988), cognitive therapy (Vittengl, Clark, & Jarrett, 2003), and pharmacological therapy (Markowitz et al., 1996). For example, patient distress

on the IIP discriminated between patients who completed treatment and those who did not (Horowitz et al., 1988).

Alternative forms

The factor structure of the IIP is debated in the literature, and several researchers have proposed shortening the IIP in different manners. The IIP–Circumplex scale (IIP-C, Horowitz, Alden,Wiggins, & Pincus 2000) is a 64-item self-report instrument. Riding and Cartwright (1999) have suggested that eight new subscales for the IIP can be derived from a 40-item short-form (IIP-40). Barkham, Leeds, Hardy, and Startup (1996) shortened the IIP to 32 items. This measure has also been translated into Italian (Clementel-Jones et al., 1996).

Source

A reprinted version of the IIP-32 can be found in Barkham et al. (1996) and in Appendix B. A more recent manual is also available: Horowitz et al. (2000). Further information about the IIP may be obtained from the author Leonard M. Horowitz, Ph.D., Stanford University, Bldg. 420, Rm. 132, Stanford, California, 94305-2130, USA; (tel) (650) 725-2407; (fax) 650.725.5699; (e-mail) lan@psych.stanford.edu.

Cost

There is no cost for this measure.

Rathus Assertiveness Schedule (RAS)

Original citation

Rathus, S. A. (1973). A 30-item schedule for assessing assertive behavior. *Behavior Therapy, 4*, 398–406.

Purpose

To assess assertiveness or social boldness in research or therapy settings when change in assertiveness is desired.

Description

The RAS is the most well-known of the assertiveness self-report measures. Respondents are asked to state how characteristic 30 items describing assertive or nonassertive behavior are of them.

Administration and Scoring

Respondents are asked to indicate how characteristic or descriptive of them each of the 30 statements describing assertive or nonassertive behavior are, on a 6-point scale from +3 (*very characteristic of me, extremely descriptive*) to −3 (*very uncharacteristic of me, extremely nondescriptive*), with no zero point on the scale. These responses are added together to obtain a total possible range of 180 points (−90 to +90).

Psychometric Properties

Sample scores and norms. Rathus (1973) presented norms based on 68 undergraduate students ($M = 29.41$, $SD = 29.63$). Quillin, Besing, and Denning (1977) provided more extensive standardization information on 133 undergraduates (47 males). Percentile norms were developed from the obtained distribution of total scores. In addition, derived scores were calculated from Z-score norms developed for each item. The percentile norms provide information on a respondent's general assertiveness relative to others, while the item norms provide information as to relative assertiveness in specific target situations. Quillin et al. (1977) suggest that the percentile norms might be most useful in research with groups for which only a gross index of relative assertiveness is required.

Reliability. Rathus (1973) reported a split-half reliability of $r = .77$; Quillin et al. (1977) found a similarly high split-half reliability of $r = .76$ and a test-retest reliability of $r = .78$. Ireland (2002) found good internal consistency with a standardized alpha coefficient of $\alpha = .89$. Other studies have found similarly high internal consistencies and test-retest reliabilities (e.g., Weitlauf, Cervone, Smith, & Wright, 2001; Weitlauf, Smith, & Cervone, 2000).

Validity. RAS scores have been found to correlate with the impressions of others (Rathus, 1973) and with both bullying behavior and being the victim of bullying (Ireland, 2002). RAS scores also seem to be related to depressed mood (Chan, 1993). Scores on the RAS have been found to be sensitive to therapeutic interventions targeted at assertiveness (Blanchard, Turner, Eschette, & Coury, 1977; Rathus, 1973; Weitlauf et al., 2000).

Several factor analyses have been conducted with the RAS. Chan (1993) found three dimensions of assertiveness in 183 Chinese undergraduates: expressing, confronting, and demanding responses. Ireland (2002) also found 3 factors in a sample of prison inmates: social assertiveness and a lack of concern about displaying emotions, a tendency to be argumentative and combative, and an willingness to converse and to promote a personal opinion. The internal consistency of each subscale ranged from $\alpha = .64$ to .87, with all item-to-total correlations positive.

Alternative Forms

Rathus (1973) stated that a 19-item version may be used with accurate results. Some studies have altered the item response choices such that they range from 0 to 5 (e.g., Ireland, 2002; Robitschek, 2003). McCormick, Hahn, and Walkey (1984) revised the RAS to form the Simple RAS (SRAS), in order to make the test more amenable to those with poor reading skills. The RAS has been translated into Swedish

Source

The RAS can be found reprinted in full in the original article (Rathus, 1973) and in Appendix B. Further information about the RAS may be obtained from the author: Spencer A. Rathus, Ph.D., New York University, School of Continuing & Professional Studies, NY, USA.

Cost

There is no cost for this measure.

Scale for Interpersonal Behavior (SIB)

Original citations

Arrindell, W. A., de Groot, P. M., & Walburg, J. A. (1984). *De Schaal voor Interpersoonlijk Gedrag (SIG). Handleiding deel 1. [The Scale for Interpersonal Behaviour (SIB). Test manual, part I]*. Lisse, The Netherlands: Swets & Zeitlinger.

Arrindell, W. A., & van der Ende, J. (1985). Cross-sample invariance of the structure of self-reported distress and difficulty in assertiveness: Experiences with the Scale for Interpersonal Behaviour. *Advances in Behaviour Research and Therapy, 7*, 205–243.

Purpose

To provide two types of information regarding assertive behavior: probability of a response and degree of discomfort

Description

The SIB was originally developed in the Netherlands. In recent years, however, the SIB has been introduced in several different countries where it is mostly used for research purposes. The SIB contains 50 items, 46 of which are classified (in a nonoverlapping fashion) into four subscales based on categories of assertive responding: (a) negative assertion assesses behavior in situations where it is necessary to show negative feelings, (b) personal limitations assesses the expression of, and dealing with, personal limitations, (c) initiating assertiveness, which assesses behavior in situations where it is necessary to give an opinion or take the initiative, and (d) positive assertion assesses the expression of positive feelings in situations calling for it. A score on a general assertiveness scale can also be utilized as an indication of the level of assertiveness across a wide variety of situations and various types of assertive responses. The two types of scores for the subscales and the general scale are distress and performance.

Administration and scoring

The respondent rates each item on two separate 5-point scales, one for distress (*not at all* to *extremely*) and the other for the probability of engaging in a specific assertive behavior (*I never do* to *I always do*). The subscale scores are derived by summing up the items within each subscale. The sum of these subscales, plus 4 items not loading onto any of the subscales, forms the general assertiveness score.

Psychometric properties

Sample scores and norms. Arrindell, de Groot, and Walburg (1984) gave normative data for 1242 psychiatric inpatients: negative assertion, $M = 37.66$ ($SD = 9.06$); personal limitations, $M = 46.65$ ($SD = 7.9$); initiating assertiveness, $M = 25.14$ ($SD = 5.99$); positive assertion, $M = 21.52$ ($SD = 5.57$); and general assertiveness, $M = 141.98$ ($SD = 25.01$). Norms were also given for each distress subscale: negative assertion, $M = 45.27$ ($SD = 13.92$), personal limitations, $M = 32.58$ ($SD = 10.79$), initiating assertiveness, $M = 26.09$ ($SD = 8.79$), positive assertion, $M = 20.69$ ($SD = 7.54$), and general assertiveness, $M = 134.68$ ($SD = 40.02$). Arrindell, Hafkenscheid, Sanderman, and Van Ooijen. (1987) later provided norms for a sample of socially anxious and unassertive respondents ($N = 175$):

negative assertion, $M = 37.94$ ($SD = 7.43$); personal limitations, $M = 46.01$ ($SD = 6.73$); initiating assertiveness, $M = 26.09$ ($SD = 8.79$); positive assertion, $M = 20.69$ ($SD = 7.54$); and general assertiveness, $M = 138.34$ ($SD = 21.90$). Arrindell et al. (1987) also gave norms for each distress subscale: negative assertion, $M = 46.10$ ($SD = 10.98$), personal limitations, $M = 33.50$ ($SD = 9.25$), initiating assertiveness, $M = 29.66$ ($SD = 6.80$), positive assertion, $M = 23.06$ ($SD = 6.35$), and general assertiveness, $M = 143.23$ ($SD = 30.97$).

Reliability. Arrindell et al. (1999) reported "excellent" reliability for the SIB (.92 to .96 for performance and distress scales). Arrindell et al. (2005) reported alphas of $\alpha = .89$ to .97 among psychiatric inpatients. Arrindell and van der Ende (1985) reported test-retest reliabilities typically ranging from $r = .69$ to .85 for up to 40 days. For up to 93 days, distress reliabilities remain satisfactory at $r = .61$ to .70, but performance reliabilities drop to $r = .32$ to .72.

Validity. Arrindell et al.'s (1990) study gives substantial support for the concurrent and discriminant validity of the SIB. SIB subscales and overall scores behave as they theoretically should in eight different studies comparing the measure to several other assertiveness measures. In a later study (Arrindell, 2005), distress subscales were substantially correlated with one another ($r = .65–.80$), as were the performance subscales ($r = .49$ to .63). In addition, the distress scales were all significantly negatively correlated with their corresponding performance scales. This indicates that both internal consistency and discriminant validity are present. Thus it appears that the different distress and performance scales are measures of different constructs.

Also lending support for the convergent validity of the SIB, Arrindell (2005) found that the SIB distress scales were positively associated with the Assertion Self-Statement Task-Revised negative self-statements subscale (Heimburg et al., 1983). The SIB has also demonstrated sensitivity to detect treatment response (Bouvard et al., 1999). Arrindell et al. (1999) reported excellent factorial invariance for the SIB.

Alternative forms

A short form version of the SIB (s-SIB) was designed based on analyses in a sample of Italian students (Arrindell, Sanavio, & Sica, 2002). Eskin (2003) indicated that the SIB maintained its validity and reliability after being translated into Swedish. Research findings utilizing the SIB have been reported with the Spanish, French, and Turkish versions of the measure as well (Arrindell et al., 2005).

Source

The instructions for filling out the questionnaire, the 50 items, and the scoring key are given in Arrindell et al. (1990) and in Appendix B. Further information about the SIB may be obtained from the author Willem A. Arrindell, Ph.D., University of Groningen, P.O. Box 72, 9700 AB, Groningen, Netherlands; (tel) 31(0)50 363 9111; (fax) +31 50 363 6300; (e-mail) vpr@bureau.rug.nl.

Cost

There is no cost for this measure.

Self-Monitoring Scale (SMS)

Original citation

Snyder, M. (1974). Self-monitoring of expressive behavior. *Journal of Personality and Social Psychology, 30*, 526–537.

Purpose

To assess an individual's sensitivity to the expressive behaviors of others and whether they use this information to change their self-presentation to better fit others' observed behaviors.

Description

The original scale has 25 items assessing how much individuals change their self-presentation to fit the social setting and how sensitive they are to the expressive behavior of others.

Administration and Scoring

In the original version, respondents were asked to rate whether the 25 statements were *true* (1) or *false* (0) as applied to them. Several items were reverse-worded, indicating less self-monitoring, and were thus reverse-scored. Items were summed to form a total score. In revised versions (Lennox & Wolfe, 1984), respondents are asked to choose the answer that best describes themselves on a 6-point scale from *certainly, always false* to *certainly, always true*. These responses are added together with higher scores indicating more self-monitoring.

Psychometric properties

Sample scores and norms. Snyder (1974) reported that in a group of 24 professional stage actors, the mean score was 18.41 ($SD = 3.38$). In a sample of residents at a psychiatric facility, a mean of 10.19 ($SD = 3.63$) was reported. Snyder (1974) also reported that scores above 15 are above the 75th percentile, while scores below 9 are below the 25th percentile among college students.

Reliability. Snyder (1974) reported that the original SMS had an internal consistency of $\alpha = .70$ and a test-retest reliability of $r = .83$. Internal consistency for the revised version of this measure was adequate at $\alpha = 77$ and $\alpha = .70$ for the subscales (Lennox & Wolfe, 1984), although others report higher alphas ($\alpha = .82$; Lazar, Kravetz, & Zinger, 2004). Test-retest reliabilities were similarly adequate over a 2-year period ($r = .53$ to .54; Anderson, 1991).

Validity. Evidence for the convergent validity of the SMS was evidenced by associations with theoretically related constructs, such as greater extroversion and less social anxiety (Schutte & Malouff, 1999). The extraversion subscale showed a significant positive relation to the Social Skills Inventory, a self-report measure which also assesses general social skills (Riggio, 1989). Participants who scored high on a measure of emotional intelligence also scored significantly higher on the SMS (Schutte et al., 2001). Further validating the measure, high scores on the SMS were positively related to peer ratings of self-monitoring (Snyder, 1974). As would be expected from the construct, this tool proposes to measure; stage actors scored significantly higher than nonactors on the SMS. However, as would also be expected, psychiatric residents scored lower than nonresidents.

Snyder (1974) reported that correlations between the SMS and measures of related but distinct constructs provided evidence for the discriminant validity of the SMS. This included low negative correlations with measures of social desirability and the Minnesota Multiphasic Personality Inventory (Hathaway & McKinley, 1942) Psychopathic Deviate scale.

Lennox and Wolfe (1984) found that the original self-monitoring scale exhibited a stable factor structure that does not correspond to the 5-component theoretical structure originally presented by the developers of the scale. Cramer and Gruman (2002) found support for a three-factor correlated solution: the Lennox and Wolfe Sensitivity subscale, a modified ability subscale, and a subscale assessing difficulties modifying self-presentation.

Alternative forms

Lennox and Wolfe (1984) presented a 13-item revised self-monitoring scale (RSMS) that measures only sensitivity to the expressive behavior of others and ability to modify self-presentation. A 20-item concern for appropriateness scale derived from the SMS was also described by Lennox and Wolfe. Briggs and Cheek (1988) eliminated seven items from the original SMS that did not load sufficiently onto the latent self-monitoring variable. A German version of the SMS with 12 items has also been developed (Laux & Renner, 2002).

Source

The 13 RSMS items are presented in Cramer and Gruman's (2002) article and in Appendix B. The original SMS items can be found reprinted in Snyder (1974). Further information about the SMS may be obtained from the author Mark Snyder, Ph.D., Department of Psychology, University of Minnesota, Psychology Department, N218 Elliott Hall, 75 East River Road, Minneapolis, MN, 55455-0344 USA; (tel) 612-625-1507; (fax) 612-626-2079; (e-mail) msnyder@umn.edu.

Cost

There is no cost for this measure.

Social Functioning Scale (SFS)

Original citation

Birchwood, M., Smith, J., Cochrane, R., Wetton, S., & Copestake, S. (1990). The social functioning scale: The development and validation of a new scale of social adjustment for use in family intervention programs with schizophrenic patients. *British Journal of Psychiatry, 157*, 853–859.

Purpose

To measure social and occupational functioning of individuals diagnosed with schizophrenia.

Description

The SFS was designed for use with family interventions for schizophrenia; it was designed to measure functioning in areas that are crucial to maintaining community living for those diagnosed with a severe mental illness. The SFS measures functioning over the past 3 months on 7 subscales: social engagement/withdrawal (time spent alone, initiation of conversations, social avoidance), interpersonal behavior (number of friends/heterosexual contact, quality of communication), independence-competence (ability to perform skills necessary for independent living), independence-performance (frequency in which the person performs activities of daily living without help), recreation (frequency of engagement in nonsocial leisure activities like hobbies), prosocial activities (frequency of engagement in common social activities), and employment.

Administration and scoring

Studies examining the SFS have utilized versions consisting of between 71 and 79 items. There are two versions, a self-report and an informant-report form. Each item is rated on a scale from 0 to 3 such that higher scores indicate better functioning. Scores for items in each subscale are added to obtain subscale scores, transformed to a standard score, and averaged to give a total scale score.

Psychometric properties

Sample scores and norms. Grant, Addington, Addington, and Konnert (2001) administered the SFS to three groups of 40 participants (26 men in each). Norms are presented first for those with "first-episode schizophrenia," then "multi-episode schizophrenia," and lastly "normal controls": social engagement or withdrawal, $M = 11.12$ ($SD = 2.51$), 9.30 ($SD = 2.02$), 14.10 ($SD = 2.36$); interpersonal communication, $M = 5.80$ ($SD = 2.30$), 6.80 ($SD = 1.64$), 8.30 ($SD = 1.18$); independence-performance, $M = 25.40$ ($SD = 6.72$), 29.03 ($SD = 5.09$), 32.30 ($SD = 4.13$); recreation, $M = 20.38$ ($SD = 7.30$), 21.68 ($SD = 5.23$), 24.08 ($SD = 5.94$); prosocial, $M = 17.73$ ($SD = 11.39$), 19.15 ($SD = 8.20$), 28.53 ($SD = 9.67$); independence-competence, $M = 35.20$ ($SD = 6.72$), 34.40 ($SD = 3.78$), 37.98 ($SD = 2.46$); and employment, $M = 6.68$ ($SD = 6.09$), 4.23 ($SD = 2.96$), 9.23 ($SD = 1.42$).

Reliability. Coefficient alphas were sufficiently high for all subscales of the SFS ($\alpha = .69$–$.87$). Correspondence between self-ratings and other-ratings are also adequate ($r = .78$; Birchwood, Smith, Cochrane, Wetton, & Copestake, 1990). Further supporting the interrater reliability of the SFS, Dickerson, Ringel, and Parente (1997) found a high level of overall concordance ($R_C^2 = .938$) between the self and informant ratings for 58 outpatients diagnosed with schizophrenia and their caregivers. Items measuring the frequency of behavior were among those with the highest concordance, while ratings of ability or social skill showed lower correlations. On only nine of 73 items did patients rate themselves significantly higher than did caregivers. There was no difference in concordance between family and nonfamily caregivers. Dickerson, Boronow, Ringel, and Parente (1999) found that four of the seven SFS subscales did not change significantly over the 2-year period, giving evidence for the scale's test-retest validity.

Validity. On the three SFS subscales that did show a significant change in Dickerson et al.'s (1999) study, residual change scores were correlated with better neurocognitive performance at baseline, younger age, and shorter illness duration, giving evidence that the change in scores was due to meaningful changes in functioning. However, other studies have found that social functioning as assessed by the SFS is unrelated to neurocognitive functioning

among outpatients diagnosed with schizophrenia (e.g., Addington & Addington, 1999), indicating that changes in neurocognitive functioning may not explain why scores would change over time.

The original study, and others published later, have given evidence for the criterion validity of the SFS by showing that those who were diagnosed with schizophrenia scored significantly lower on the SFS than did normal controls (Birchwood et al., 1990; Grant et al., 2001).

Discriminant validity was also examined for the SFS. In first episode psychosis, negative symptoms and negative self-statements, but not social anxiety, were significant predictors of social functioning (Voges & Addington, 2005).

Supporting the construct validity of the SFS, factor analyses suggested that one factor accounts for nearly 60% of the variance, loading uniformly strongly across all scales. Canonical analyses between the SFS and other measures of psychosocial functioning in individuals diagnosed with schizophrenia indicate that there is a limited relationship between the measures with between 50 and 60% shared variance (Dickerson, Parente & Ringel, 2000).

Alternative forms

Two versions of the SFS exist: a self-report and an informant-report form. There is also a Spanish version of the SFS. Vazquez and G-Boveda (2000) report that the measure maintains its reliability and validity when translated into Spanish.

Source

The SPS self-report and informant-report versions are reprinted in Appendix B. Further information about the SFS may be obtained from the author, Max Birchwood, Ph.D., District Psychology Department, All Saints Hospital, Lodge Road, Winson Green, Birmingham B18 5SD, UK. (tel) 44 0121 414 7214; (fax) 0121 414 3971; (e-mail) m.j.birchwood.20@bham.ac.uk.

Cost

There is no cost for this measure.

Social Skills Inventory (SSI)

Original citation

Riggio, R. (1986). Assessment of basic social skills. *Journal of Personality and Social Psychology, 51*, 649–660.

Purpose

To assess basic social communication skills.

Description

The original SSI measures social skills in seven domains with 15 items per domain. The first domain, Emotional Expressivity (EE) includes the ability to spontaneously and accurately reflect and feel emotional states, and the ability to nonverbally express attitudes and cues of interpersonal orientation. Individuals high in this domain are often characterized as vibrant, full of life, and emotionally charged. The second domain, Emotional Sensitivity (ES), is made up of the general skills required to receive and decode nonverbal communications. Those high in this domain are vigilant in observing the nonverbal emotional cues of others, so they are able to decode emotional communication quickly and accurately resulting in a higher likelihood of sympathetically experiencing the emotional states of others. Emotional Control (EC) includes the broad abilities of controlling and regulating emotional and nonverbal display. Those high in this domain are likely to be good emotional actors. Social Expressivity (SE) includes verbal skills and the ability to engage others in social interaction. Persons high in this domain can easily initiate conversations with others, as they are usually able to speak spontaneously, sometimes without perceptible control or monitoring of content. The Social Sensitivity (SS) domain includes the abilities of decoding and understanding verbal communication and the possession of general knowledge about the norms governing appropriate interpersonal behavior. Socially sensitive individuals are attentive to others, but may be overly concerned with the appropriateness of their own behavior and the behavior of others, possibly leading to self-consciousness and social anxiety at its extremes. The Social Control (SC) domain includes the ability to manage social self-presentation. Individuals high in this domain are tactful, socially adept, and self-assured. They are also often skilled at acting such that they are able to play various social roles and can easily take a particular stance in a discussion. Lastly, those high in the Social Manipulation (SM) domain believe that in some social situations it is essential to manipulate others or alter elements of the situation to affect the outcome of social encounters. The more recent adaptation of the SSI, which is most commonly used in research, does not include the 15 SM items (Riggio, 1989).

Administration and scoring

The most current revision of the SSI (Riggio, 1989) uses a 5-point scale ranging from 1 (*not at all like me*) to 5 (*exactly like me*). Scores for each subscale are formed by summing the relevant items, while a global social skills index can be calculated by summing all items.

Riggio, Tucker, and Coffaro (1989) derived two empathy indexes from the SSI subscales. An index of emotional empathy is made up of the sum of the emotional sensitivity and emotional expressivity scales. An index of cognitive/social empathy is constructed by summing the social sensitivity, social expressivity, and social control scales.

Psychometric properties

Sample scores and norms. The original study (Riggio, 1986) reported means and standard deviations for 509 undergraduate college students on each scale: EE, $M = 82.3$ ($SD = 16.4$); ES, $M = 96.2$ ($SD = 15.1$); EC, $M = 74.8$ ($SD = 15.7$); SE, $M = 87.8$ ($SD = 19.6$); SS, $M = 91.9$ ($SD = 16.2$); SC, $M = 87.0$ ($SD = 18.3$); SM, $M = 68.3$ ($SD = 15.9$); global SS, $M = 588.2$ ($SD = 61.8$).

Reliability. Riggio (1986) found test-retest correlations ranging from $r = .81–.96$ over 2 weeks for the different domains of the SSI. Internal consistency also appeared adequate with

alpha coefficients ranging between $\alpha = .75$ and .88. Other studies have found the scales to be more variable in terms of internal consistency. For example, Hirokawa, Yagi, and Miyata (2004) found alpha coefficient ranging from $\alpha = .55$ for EE to $\alpha = .90$ for SE.

Validity. In the original study (Riggio, 1986), the SSI demonstrated convergent and discriminant validity in relation to other measures of nonverbal social skill and traditional personality scales. Global SSI scores are highly related to certain personality dimensions from the 16 Personality Factor Test, such as sober-happy-go-lucky ($r = .58$), shy-venturesome ($r = .60$), and reserved-outgoing ($r = .37$). Riggio et al. (1989) found that the SSI was related to the Interpersonal Reactivity Index (a measure of empathy) from $r = .16$ to .32, the Hogan Empathy Scale ($r = .57$) and The Questionnaire Measure of Emotional Empathy ($r = .30$). SSI scores have also been found to be associated with emotional intelligence scores (Schutte et al., 2001). However, the SSI was not found to be significantly related to the ability to recognize emotions in others, the ability to take the perspective of essay authors, the trusting-suspiciousness and practical-imaginative dimensions of personality, or a physical attractiveness index, all giving evidence for the measure's discriminant validity (Riggio, 1986; Riggio et al., 1989).

Higher self-ratings of social skills on the SSI were also related to higher behavioral ratings of social skills by others (Banks & Kenner, 1997). Scores on the SSI predicted some social group memberships, typical social behaviors, and the depth of social networks (Riggio, 1986). Results of structural modeling analyses indicated that those classified as socially skilled by the SSI were judged as believable by observers regardless of whether they were telling the truth or deceiving (Riggio, Tucker, & Widaman, 1987). Higher SSI scores also correlate with the exhibition of greater decoding abilities, emotional sending abilities, and conversational initiation abilities (Miczo, Segrin, & Allspach, 2001). Those with higher SSI scores are also judged as more competent by their partners, who were also more satisfied with their relationships (Miczo, Segrin, & Allspach, 2001).

EE, an individual's skill in nonverbal communication, ES, an individual's skill in receiving and interpreting the nonverbal communication of others, and SC, an individual's ability to engage others in social discourse were related to teaching effectiveness among teachers (Hammann, Lineburgh, & Paul, 1998), lending evidence to the criterion validity to the scale. Also, as would be expected, actors considered themselves more socially skilled on the SSI than normal controls (Banks & Kenner, 1997). Possession of social skills, particularly expressivity and SC, predicted favorable initial impressions of others, suggesting predictive validity.

Lending further support for the construct validity of the SSI, social skills combined with perceived social support predicted satisfaction with college, satisfaction with life in general, and reduced loneliness (Riggio, Watring, & Throckmorton, 1993). Riggio, Throckmorton, and DePaola (1990) also found that SSI scores positively correlate with self-esteem and negatively correlate with social anxiety and loneliness. Riggio's (1986) factor analysis showed strong support that at least six of the seven SSI subscales represent distinct constructs (all except EE).

There is some evidence that the validity of the SSI is questionable. Although Riggio (1986) first found physical attractiveness to be unrelated to SSI scores, later data collection using a college student sample suggested that physical attractiveness was significantly positively correlated with total SSI. Also contrary to expectations, neither lecturing experience, being elected to a political office in a club or organization, present employment, expected future employment, nor ideal employment were consistently significantly related to the SSI scales. However, subjects who were presently employed did tend to rate as more socially skilled on the total SSI than were unemployed subjects (Riggio, 1986).

Alternative forms

The original version included a social manipulation scale, but this was eliminated by Riggio in 1989. It has also been translated into Japanese (Kayano, 1988).

Source

Further information about the SSI may be obtained from the manual: Riggio and Carney (2003). *Manual for the social skills inventory* (2nd ed.). Redwood City, CA: MindGarden. Interested persons may also contact the author, Ronald E. Riggio, Ph.D., Claremont McKenna College, 500 E. 9th Street, Seaman Hall 237, Claremont, CA 91711, USA. (tel) 909-607-2997; (e-mail) ronald.riggio@claremontmckenna.edu.

Cost

The manual costs $40, while copies of the instrument range in cost from $0.60 to $0.80 depending on quantity.

Wolpe-Lazarus Assertiveness Schedule (WLAS)

Original citation

Wolpe, J., & Lazarus, A. A. (1966). *Behavior therapy techniques: A guide to the treatment of neuroses*. Elmsford, NY: Pergamon.

Purpose

Originally designed to reveal specific areas of nonassertive interaction so that these deficits could be the focus of clinical intervention.

Description

The WLAS is widely accepted as a dependent measure in studies examining modification of social skills deficits, especially assertiveness skills, in college students and psychiatric patients. For each of the 30 items on the WLAS, the respondent indicates if it is true or false that they are likely to behave assertively in situations where request, refusal, and positive expression are appropriate.

Administration and scoring

Assertive responses are assigned one point such that potential total scores range from 0 to 30. WLAS cutoff scores of 14 and under identify unassertiveness (Kogan, Hersen, & Kabacoff, 1995).

Psychometric properties

Sample scores and norms. Hersen et al. (1979) found that for 257 psychiatric patients, males had a mean score of 15.92 ($SD = 5.65$), and women had a mean score of 16.09 ($SD = 5.61$).

Reliability. Hersen et al. (1979) found moderately high internal consistency with $\alpha =$ .78 and test-retest reliability of $r = .65$. In a sample of older adults, the WLAS displayed adequate internal consistency ($\alpha = .75$) and test-retest reliability over 3–4 weeks ($r = .81$; Kogan et al., 1995).

Validity. Evidence for the convergent validity of the WLAS is mixed. Negative self-statement scores discriminated among those who were categorized as low or high on WLAS (Heimberg et al., 1983), but scores on other measures of assertion could not differentiate the two groups. However, Eisler, Hersen, Miller, and Blanchard (1975) stated that several other studies have indicated that the WLAS could differentiate between those possessing high and low assertion capabilities. Swimmer and Ramanaiah (1985) stated that their results, based on a multi-method factor analysis, indicated good convergent and discriminant validity. Kazdin (1974) found that modeling and reinforcement treatments resulted in score improvement on the WLAS, but there was little evidence for the external validity of the WLAS when scores were correlated with performance on a role-play test (Hersen et al., 1979).

Alternative forms

The WLAS was revised by Hersen and colleagues (1979) in order to make questions more applicable to Americans as the scale was originally written by British authors.

Source

The WLAS can be found reprinted in full in the original source (Wolpe & Lazarus, 1966) and in Appendix B.

Cost

There is no cost for this measure.

ADULT OBSERVATION

Katharine C. Sears and Peter J. Norton

Assessment of Interpersonal Problem-Solving Skills (AIPSS)

Original citations

Donahoe, C. P., Carter, M. J., Bloem, W. D., Hirsch, G. L., Laasi, N., & Wallace, C. J. (1990). Assessment of interpersonal problem-solving skills. *Psychiatry, 53*, 329–339.

Purpose

To measure an individual's ability to identify and define an interpersonal problem, describe a solution strategy, and enact that solution in a role-play.

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Description

The AIPSS consists of 14 videotaped interpersonal scenes; one demonstration scene followed by 13 test scenes. Of the thirteen test scenes, 10 display interpersonal problems between the actors, while three have no identifiable problems and are not included in scoring. Participants are individually presented videotaped scenes and instructed to identify with one of the actors in the scene. After viewing each scene they are asked if there was a problem in the scene. If a problem is identified, participants are asked to describe it and state what they would say or do in that situation. Finally, the participant is asked to role-play his or her proposed solution with the experimenter or trained assistant. All AIPSS sessions are videotaped for later scoring.

Administration and scoring

The AIPSS is administered and scored by trained examiners and observers based on a structured manual (Donahoe, Carter, Bloem, & Leff, 1984). Scoring consists of a complex system of either 0–1 or 0–2 success ratings on the following six scales: (a) problem identification, (b) problem description, (c) processing, (d) role-play content, (e) role-play performance, and (f) overall role-play effectiveness. These scales are grouped into larger domains of performance: Receiving Skills, Processing Skills, and Sending Skills. Two separate scoring systems may be utilized depending on whether skills in these three domains are considered to be interdependent ("general" scoring) or largely independent ("specific" scoring).

Psychometric properties

Sample scores and norms. From their original sample, Donahoe et al. (1990) report means and standard deviations for adult male schizophrenic patients and nonclinical comparison men on all 6 AIPSS scales, using general scoring. Subscale means and standard deviations for patient and nonpatient groups, respectively, are as follows: problem identification, $M = 0.77$ ($SD = 0.20$), $M = 0.93$ ($SD = 0.08$); problem description $M = 0.85$ ($SD = 0.16$), $M = 0.99$ ($SD = 0.03$); processing $M = 0.60$ ($SD = 0.23$), $M = 0.79$ ($SD = 0.12$); role-play content $M = 0.50$ ($SD = 0.18$), $M = 0.82$ ($SD = 0.10$); role-play performance $M = 0.54$ ($SD = 0.18$), $M = 0.85$ ($SD = 0.10$); overall role-play effectiveness, $M = 0.47$ ($SD = 0.16$), $M = 0.82$ ($SD = 0.10$). Grant et al. (2001) report means and standard deviations for adult first-episode schizophrenic patients, multiepisode schizophrenia patients, and nonclinical controls on the three AIPSS domains of performance (calculated from overall scale scores). Domain score means and standard deviations for these three groups, respectively, are as follows: receiving skills $M = 64.13$ ($SD = 19.80$); $M = 63.25$ ($SD = 22.00$), $M = 84.00$ ($SD = 13.41$); processing skills $M = 44.75$ ($SD = 20.78$), $M = 46.75$ ($SD = 22.00$), $M = 68.50$ ($SD = 19.02$); sending skills $M = 40.95$ ($SD = 21.18$), $M = 49.18$ ($SD = 21.57$), $M = 69.30$ ($SD = 20.16$).

Reliability. Donahoe et al. (1990) reported good interrater reliability between trained examiners and independent trained raters using both the general ($r = .95$–1.00) and specific ($r = .88$–1.00) scoring procedures. Acceptable test-retest correlations were also reported, ranging from $r = .46$–$.77$ for general scoring and $r = .56$–$.84$ for specific scoring. Internal consistency was fair using general scoring ($\alpha = .57$–$.74$) and moderate-to-good using the specific scoring procedure ($\alpha = .69$–$.93$).

Validity. Donahoe et al. (1990) provide evidence to support discriminative validity of the AIPSS; they found that ratings from the general scoring system effectively differentiated nonclinical participants from clinical participants meeting DSM-III criteria for schizophrenia.

Grant et al. (2001) reported that AIPSS domain scores successfully differentiated two DSM-III-R diagnosed schizophrenic groups from nonclinical controls.

Source

Further information about the AIPSS and a copy of the administration manual may be obtained from Clyde P. Donahoe, Ph.D., South Texas Veterans Healthcare System, 7400 Merton Minter Blvd., San Antonio, TX 78299; (tel) 210-617-5121; (email) clyde.donahoe@med.va.gov. Information about accessing training tapes may be acquired through Dr. Jean Addington, Ph.D.; (e-mail) jean_addington@camh.net.

Cost

There is no cost for this measure.

Behavioral Assertiveness Test – Revised (BAT-R)

Original citations

Eisler, R. M., Hersen, M., Miller, P. M., & Blanchard, E. B. (1975). Situational determinants of assertive behaviors. *Journal of Consulting and Clinical Psychology, 43*, 330–340.

Eisler, R. M., Miller, P. M., & Hersen, M. (1973). Components of assertive behavior. *Journal of Clinical Psychology, 29*, 295–299.

Purpose

To measure assertiveness behavior in a variety of interpersonal contexts based on standardized role-plays.

Description

The BAT-R is an extension of an earlier behavioral assertiveness test (Eisler, Miller, & Hersen, 1973) that focused on measuring negative expressions of assertiveness through role-played scenarios. The BAT-R includes additional scenarios designed to measure positive expressions of assertiveness and was designed to evaluate behavior across a variety of social contexts. The test consists of 32 standardized role-play situations in which role-play partners differ by gender and level of hypothetical familiarity, and scenarios differ in their design to elicit positive or negative assertiveness behavior. Following a brief narration of the situation, participants are asked to imagine themselves in the situation and to respond as they typically would when given a predetermined prompt.

Administration and Scoring

The full BAT-R takes approximately 30–45 min to administer, and scenarios are video-taped for later scoring. Scoring includes an overall assertiveness rating, plus molecular measures and ratings of nonverbal behaviors such as smile frequency, duration of eye contact, and appropriateness of affect. Finally, specific behaviors related to negative (e.g., compliance, requests for new behavior) and positive (e.g., expressing praise, expressing

appreciation) social behavior are rated on an occurrence or nonoccurrence basis. Ideally, scoring is performed by experienced, independent judges.

Psychometric properties

Sample scores and norms. In their original article, Eisler et al. (1975) report means for all 12 molecular components within their sample of 60 male psychiatric patients, mean age 43.4 years. Participants whose mean rating on overall assertiveness fell in the top third of the distribution were designated "high-assertive" while those falling in the lower third were designated "low-assertive". Subscale means for high- and low-assertiveness groups, respectively, are as follows: duration of eye contact (seconds), $M = 30.20$ and 22.52; number of smiles, $M = 0.30$ and 0.84; affect rating, $M = 13.91$ and 12.25; duration of reply (seconds), $M = 244.85$ and 120.43; latency of response (seconds), $M = 53.52$ and 58.36; loudness of speech rating, $M = 12.20$ and 10.33; ratio of speech disturbances to speech duration, $M = 0.14$ and 0.07; occurrence of compliance content, $M = 0.89$ and 1.57; number of requests for new behavior, $M = 2.10$ and 0.98; number of statements of praise, $M = 1.56$ and 1.13; number of statements of appreciation, $M = 2.03$ and 1.80; occurrence of spontaneous positive behavior, $M = 1.66$ and 1.19. Standard deviations were not reported by the authors. Sample scores and norms on other clinical and nonclinical populations are currently unavailable.

Reliability. In the original male psychiatric sample and other adult psychiatric samples, interrater reliability among experienced judges has tended to be good, ranging from $r = .82$–1.00 with at least 87–100% agreement (Bellack, Hersen, & Turner, 1978; Eisler et al., 1975; Eisler et al., 1973). Skillings, Hersen, Bellack, and Becker (1978) reported interrater reliability between $r = .73$ and $.99$ with 83% to 91% agreement in their sample of college females. In a more recent study of low assertion females, Baggs and Spence (1990) reported reliabilities ranging from $r = .63$–$.91$ for eye contact, response duration, latency compliance, and overall assertiveness, but weaker reliabilities (below $r = .60$) for all other molecular ratings.

Validity. A factor analytic study by Pachman, Foy, Massey, and Eisler (1978) found that for the negative scenarios nearly all nonverbal specific measures correlated significantly with global assertiveness ratings and all but one loaded on a single assertiveness factor. Eisler et al. (1975) demonstrated that high/low assertiveness ratings differentiate on most molecular ratings of social skill. Evidence for convergent validity includes Bellack et al. (1978) finding that combined component BAT-R behaviors were highly predictive of mental health experts' corresponding quality and effectiveness ratings, and Eisler et al.'s (1975) finding that high/low BAT-R assertiveness ratings converged with self-report ratings. A second study by Bellack et al. (1978; Bellack, Hersen, & Turner, 1979), however, demonstrated low correspondence between assertiveness ratings in BAT-R situations and two more naturalistic settings. They found greater correspondence between interview responses and in vivo behavior than between interview responses and role-play, leading them to question the external validity of the test.

Alternative forms

Shortened versions of the BAT-R have been utilized for brief clinical assessment and skills retraining (Eisler, 1988). The typical procedure is to select 5–10 scenarios that target the particular client's deficits. A version validated for children has also been published (Ollendick, 1981).

Source

Further information about the BAT-R may be obtained from author Michel Hersen, Ph.D., ABPP, Pacific University, School of Professional Psychology, 2004 Pacific Avenue, Forest Grove, OR 97116-2328, USA; (tel) 503-352-2834; (fax) 503-352-2134; (email) hersenm@pacificu.edu.

Cost

There is no cost for this measure.

Behavioral Role-Playing Assertion Test (BRAT)

Original citation

McFall, R. M., & Lillesand, D. B. (1971). Behavioral rehearsal with modeling and coaching in assertion training. *Journal of Abnormal Psychology, 77*, 313–323.

Purpose

To measure assertiveness in refusing unreasonable requests using structured, single-prompt role-play interactions.

Description

The BRAT was designed as a specific behavioral measure for an experimental study of assertion training. The authors adapted the majority of its items from the Conflict Resolution Inventory (CRI; Schwartz & Gottman, 1976), a measure based on the refusal of unreasonable requests in situations that are problematic for college students. The BRAT consists of nine stimulus situations prerecorded to audiotape, eight of which are refusal items and one that is included as a measure of generalization to other types of assertive behavior (asking a landlord to follow through with promised repairs).

Administration and scoring

In the original study, participants were seated alone in an experimental room while the experimenter operated the tape recorder from an adjacent room. Participants' responses to the single-prompt items were recorded on audiotape for later scoring. The original study included additional audio segments designed to model appropriate assertive responses to the participant, followed by another opportunity for participants to respond to the initial prompt. Responses were rated by independent, inexperienced judges using a 5-point scale: 1 = *unqualified acceptance*; 2 = *qualified acceptance*; 3 = *equivocal response*; 4 = *qualified refusal*; 5 = *unqualified refusal*. Judges were given a one-page scoring manual providing examples of each scoring category.

Psychometric properties

Sample scores and norms. The BRAT was initially tested on a gender-balanced sample of 33 "nonassertive" college students; sample scores and norms are not currently available.

Reliability. McFall and Lillesand (1971) reported good interrater reliabilities for mean response ratings across situations both at pretest ($r = .92$) and posttest ($r = .95$). The test-retest reliability, calculated on control subjects over a two-week interval, was $r = .76$. No other reliability data is currently available.

Validity. McFall and Lillesand's (1971) finding that assertiveness ratings significantly changed following a brief assertiveness training intervention provides some evidence for content validity of the BRAT. The authors also demonstrated significant positive correlations between BRAT ratings and assertiveness scores on the CRI at pretest ($r = .69$) and posttest ($r = .63$). The authors note that the concordance at pre-test is particularly powerful given that CRI and BRAT pre-tests may have been administered with intervals as long as 2 weeks in between.

Source

Authors of the BRAT point out that it was developed as a specific experimental measure and not intended for general clinical use. Further information about the BRAT may be obtained from author Richard M. McFall, Ph.D., Department of Psychology, University of Indiana, 1101 E. 10th Street, Bloomington, IN 47405; (tel) 812-855-0349; (fax) 812-856-4544; (e-mail) mcfall@indiana.edu.

Cost

Information regarding the cost of this measure is not available.

Ideographic Role-Play Test (IRP)

Original citation

Kern, J. M. (1991a). An evaluation of a novel role-play methodology: The standardized idiographic approach. *Behavior Therapy, 22*, 13–29.

Kern, J. M. (1991b). *Manual for the idiographic role-play test of assertion*. Unpublished test manual, University of Nevada, Las Vegas.

Purpose

To measure assertiveness behavior in a variety of general assertion situations, based on individualized role-plays.

Description

Participants are asked to recall and describe recent personal examples for each of six requested situation types: (a) not wanting to lend an item that someone has asked to borrow, (b) buying something that turns out not to be what was wanted, (c) being requested to do something undesirable, (d) receiving a solicitation to purchase an unwanted item, (e) someone doing something that disturbs the participant, and (f) wanting another person to do something he or she promised to do previously. Participants are asked to provide specific detail about

six different example situations within each situation type and also to provide a description of their short- and long-term relationship with the other person. Example situations are then judged appropriate or inappropriate based on a predetermined set of criteria, and appropriate situations are role-played with a trained partner using available props to enhance realism (e.g., a telephone). Role-play interactions are kept brief, typically involving two to six interchanges, and may be repeated if either participant or tester believes that they have performed an invalid enactment of the naturalistic situation.

Administration and scoring

A trained observer categorizes the participant's responses on each interaction into one of six response classes ranging from total assertiveness to total submission and aggression. Response scores (1–6) are then summed within each situation type, yielding overall scores for the six broad areas of assertiveness. Finally, all situation scores are summed into a total rating of assertiveness, the total IRP score. For both situation scores and overall scores, average situation type scores are substituted for missing data if fewer than six interactions are role-played for any situation type.

Psychometric properties

Sample scores and norms. The IRP was initially tested on a gender-balanced sample of 48 college students; sample scores and norms are not currently available.

Reliability. Kern (1991a) reported good point-by-point agreement between two experienced judges on individual situation ratings (87% agreement) and satisfactory interrater reliability using a more conservative estimate ($K = .84$). Interrater reliability was also very high for judges' ratings of overall assertiveness ($r = .94$). Test-retest reliability following a 6-week interval was $r = .90$ for the overall assertiveness score but somewhat lower and more variable ($r = .46–.87$) for scores within each of the six situation types. All but one situation type, however, demonstrated test-retest reliability in the $r = .73–.87$ range, providing evidence for good overall reliability. Internal consistency was generally low at test and retest, with alphas ranging from .20 to .65 for situation ratings, and moderate for overall assertiveness scores ($\alpha = .77–.79$).

Validity. Kern presented intercorrelations between the IRP, a self-report measure of assertion (CRI; Schwartz & Gottman, 1976), and a self-report measure of disposition to respond in a socially desirable manner, the Crowne-Marlowe Social Desirability Scale (CMSD; Crowne & Marlowe, 1960). Correlations between the IRP and CRI were significant both after initial testing and retest, suggesting convergent validity. Furthermore, the author found that those with high CRI scores were significantly more assertive in IRP role-plays than those with medium or low CRI scores. Nonsignificant correlations between the IRP and CMSD provide evidence for discriminant validity. External validity was assessed via comparison of participants' responses to an in vivo telephone call and subsequent IRP role-play of the telephone call. The author reported significant correlations between components of participants' refusal behavior in vivo and in the IRP role-play.

Source

Further information about the IRP may be obtained from the author, Dr. Jeffrey M. Kern, Department of Psychology, University of Nevada, Las Vegas, 4505 Maryland Parkway, Las Vegas, NV 89154; (tel) 702-895-0187; (fax) 702-895-0195; (e-mail) jkern@unlv.nevada.edu. A copy of the testing manual may be obtained from Behavioral Measurement Database

Services, PO Box 110287, Pittsburgh, PA 15232-0787; (tel) 412-687-6850. The testing manual may also be obtained through BRS Search Service (Online Vendor).

Cost

There is no cost for this measure.

Social Interaction Test (SIT)

Original citation

Trower, P., Bryant, B., & Argyle, M. (1978). *Social skills and mental health*. Pittsburgh: University of Pittsburgh Press.

Purpose

To evaluate social skill based on competency ratings of component behaviors and overall process using a semi-structured role-play interaction with two confederates.

Description

The SIT consists of a single 12-minute interaction designed to resemble a casual three-person encounter between strangers. The participant is told that the other two individuals (one male, one female) believe that they are taking part in a social psychology experiment, and all three are instructed to act as if it were a natural social encounter. The SIT consists of three distinct 4-minute phases during which different individuals are instructed to lead the conversation.

Administration and scoring

Specific instructions direct the participant to carry the conversation for the first four minutes by talking about his or her work, hobbies, and interests. The female confederate is instructed to take over for the next four minutes and the male participant is told to interject whenever he likes. Unknown to the subject, the confederates' behavior is prepared in advance; the female confederate is trained to adopt a warm and friendly style while the male is trained to adopt a critical and confrontational style. The amount and nature of feedback offered by each confederate is predetermined. These style-by-sex interactions of confederate behaviors were not varied by Trower, Yardley, et al. (1978) regardless of the sex of the patient being assessed, although no differences in social behavior were observed between male and female patients. Still, it is unclear how social responses might be influenced by variations in the behaviors portrayed by the opposite-sex confederates.

The interaction is videotaped for later scoring, and the SIT is scored in three parts by independent raters. The first part includes elaborate parallel rating scales for multiple elements of observed behavior including specific components of voice quality (e.g., volume, pitch, clarity), nonverbal behavior (e.g., orientation, gaze, proximity), and characteristics of conversation (e.g., length, formality, turn-taking). Raters judge each element on a 0–4 scale with "0" representing normal behavior that creates no negative impression, and "4" representing abnormal behavior that creates a strong negative impression. In the second part of scoring, raters record their global impressions using 13 bipolar adjective scales (e.g.,

warm/like – cold/dislike; superior/dominant – inferior/submissive; socially skilled/socially unskilled). Each dimension spans a 7-point continuous rating scale. Finally, each rater writes behavioral descriptions for the two general impressions that he or she considers most faulty, in an effort to provide more data on the ratings considered least definitive. Ratings on the elements of behavior and global impressions may be summed to provide an overall score.

Psychometric properties

Sample scores and norms. Sample scores and norms for this measure are not currently available.

Reliability. In a treatment study for outpatients who were identified as socially phobic or socially inadequate, Trower, Yardley, Bryant, and Shaw (1978) reported that the average agreement on elemental SIT ratings at pretreatment between treatment-blind lay assessors was $r = .55$.

Validity. Trower, Yardley et al. (1978) reported that the sum of elemental and global impression ratings correlated highly with a separate criterion of clinical judgment ($r = .87$), and Trower (1980) reported reasonable agreement ($r = .73$) between a variety of professionals' interview ratings and a lay assessor's SIT ratings of social skill. In the same study, participants' performance on the SIT differentiated between individuals deemed socially skilled and unskilled. However, these scores were based on the latency of each elemental behavior, not the judged normality/abnormality of behaviors. Using a series of semi-structured role-play interactions, Beidel, Turner, and Dancu (1985) found that SIT ratings of gaze appropriateness were significantly different for socially anxious and non-anxious individuals.

Source

Further information about the Social Interaction Test may obtained from author Peter Trower, Ph.D., School of Psychology, University of Birmingham, Edgbaston, Birmingham, B15 2TT, UK; (tel) 0121 414 4917; (fax) 0121 414 4897; (e-mail) p.trower@bham.ac.uk.

Cost

Information regarding the cost of this instrument is not available.

Simulated Social Interaction Test (SSIT)

Original citation

Curran, J. P. (1982). A procedure for the assessment of social skills: The Simulated Social Interaction Test. In J. P. Curran & P. M. Monti (Eds.) *Social skills training: A practical handbook for assessment and treatment* (pp. 348–373). New York: Guilford Press.

Purpose

To measure overall social skills in a variety of different situations using structured, single-prompt role-play interactions.

Description

The SSIT consists of 12 single-prompt role-play scenarios: 4 practice scenarios followed by 8 scored scenarios. The situations represent a range of problematic social encounters involving disapproval or criticism, social assertiveness and visibility, confrontation and anger expression, heterosexual interaction, interpersonal warmth, conflict with or rejection by a parent or relative, interpersonal loss, and receiving compliments. For each scenario, a narrator outlines the scene and then a role-play partner delivers a single predetermined prompt. The client then delivers a brief response and the scenario is terminated. Sex of the confederate is varied for half of the scenes.

Administration and scoring

Prompts can be played on audiotape, videotape, or presented by a confederate. Following each simulated interaction, participants are asked to make a self-rating on two 11-point scales evaluating their own social effectiveness and experienced degree of anxiety in each situation. Participants' responses are also videotaped and later scored by trained judges, who rate them using two 11-point scales of social anxiety and social skill. Judges ratings are then summed across situations to provide a total SSIT anxiety score and total SSIT skill score.

Psychometric properties

Sample scores and norms. Curran, Wessberg, Monti, Corriveau, and Coyne (1980) reported group means for self-ratings and trained judges' ratings of SSIT anxiety and SSIT skill. Group means for 81 male Veterans Adminstration psychiatric patients and 60 male nonpatients (National Guardsmen), respectively, are as follows: SSIT skill (self), $M = 5.87$, $M = 5.70$; SSIT anxiety (self), $M = 4.52$, $M = 3.57$; SSIT skill (judges), $M = 5.08$, $M = 5.6$; SSIT anxiety (judges), $M = 6.82$, $M = 6.21$. Researchers also collected molar self-ratings of overall social skill and social anxiety and reported means for the two groups, respectively: overall skill (self), $M = 5.27$, $M = 7.04$; overall anxiety (self), $M = 6.26$, $M = 3.18$. Standard deviations were not provided by the authors.

Reliability. Curran, Wessberg, et al. (1980) reported $\alpha = .98$ for trained judges' ratings on the original version of the SSIT with Veterans Association psychiatric patients and National Guardsmen. Curran (1982) also reported interrater and test-retest reliabilities for trained judges' ratings of skill and anxiety on eight similar single-prompt role-plays. Raters were trained to rate overall anxiety and skill for each scenario on an 11-point scale, just as in the SSIT, and the test was administered to 102 Veterans Administration psychiatric patients, analogous to the original SSIT clinical sample. Curran (1982) reported interrater reliabilites of $\alpha = .96$ for anxiety and $\alpha = .97$ for skill at initial testing, and $\alpha = .93$ for anxiety and $\alpha = .96$ for skill after a 6-month interval. Average test-retest reliabilities among raters were $r = .74$ for anxiety and $r = .91$ for skill.

Validity. Curran, Monti et al. (1980) report generalizability coefficients for the sampling adequacy of the SSIT. Unit-sample coefficients based on any one simulated interaction were low, but full-sample coefficients based on skills ratings for all eight simulated situations ranged from .76 to .87, indicating adequate representation to the universe of all possible similar role plays. Curran, Wessberg et al. (1980) present evidence for discriminative validity in their finding that judges perceived National Guardsmen as significantly more skillful and less anxious on SSIT role plays than patients. National Guardsmen also obtained significantly higher scores on the Social Performance Survey Schedule (SPSS; Lowe & Cautela, 1978), a self-report measure of social skill. Curran (1982) presents evidence for convergent validity.

Nurses, ward raters, structured interviewers, and patients themselves were employed to provide multiple-observer ratings of patient social skill in an inpatient psychiatric setting. SSIT judges' overall skills ratings were significantly correlated to three of the four sets of judges' global skills ratings and to ratings on an abbreviated version of SPSS.

Source

Further information about the SSIT may be obtained from the author, James P. Curran, Ph.D., Rhode Island Psychological Association, PMB 103, 1643 Warwick Ave., Warwick, RI 02889; (tel) 401-356-1940; (fax) 401-356-1949; (e-mail) jpcurran@ppp.necoxmail.com.

Cost

There is no cost for this measure.

Social Skill Behavioral Assessment System (SSBAS)

Original citation

Caballo, V. E., & Buela, G. (1988). Molar/molecular assessment in an analogue situation: Relationships among several measures and validation of a behavioral assessment instrument. *Perceptual and Motor Skills, 67*, 591–602.

Purpose

To evaluate social skill based on rated adequacy of molecular behaviors and corresponding global impressions of behavior in unstructured casual interactions with a confederate.

Description

The SSBAS was designed to assess the situational adequacy of 21 empirically identified verbal and nonverbal behaviors such as gaze, posture, talk time, humor, and pace, as well as provide eight global assessments of participants' behavior, based on a single 4-min role-play interaction.

Administration and scoring

A trained confederate participates in unstructured casual conversation with each participant. Confederates adhere to specific rules such as not initiating conversation, except after 20 s of silence and limiting excessive reinforcement like smiles, head nods, and sounds of agreement. Up to four independent judges assess different components of the participants' interactive behavior with scores from 1 (*very inadequate*) to 5 (*very adequate*) and rate their global impressions on a 7-point scale. Judges' scores are averaged to produce a final characteristic score for each molar category and an adequacy score for each molecular behavior.

Psychometric properties

Sample scores and norms. The SSBAS was originally tested on a sample of 66 college students, mean age 20.4 years; sample scores and norms are not currently available.

Reliability. The authors reported high agreement between pairs of inexperienced judges assessing the frequency of rated behaviors (95–98%) and high reliability for the components assessed by amount (ratios between .95 and .97 of shortest duration to longest duration recorded). The authors also found molecular adequacy ratings to be highly correlated with the amount/frequency of some behaviors (Caballo & Buela, 1988).

Validity. The authors found moderate-to-high correlations between adequacy ratings of the 21 molecular behaviors and molar ratings of social skill provided by both independent observers and the participants themselves. Correlations between the elements of the SSBAS and a self-report instrument of assertiveness/social skill (College Self Expression Scale) were smallto moderate.

Source

Further information about the SSBAS may be obtained from the authors, Vincente E. Caballo, Universidad de Granada, Facultad de Psicologia, Cuesta del Hospicio, 18015 Granada, Espana; (tel) 34-958-243751; (fax) 34-958-246239; (e-mail) vcaballo@ugr.es; and Gualberto Buela, Universidad de Granada, Facultad de Psicologia, Cuesta del Hospicio, 18015 Granada, Espana; (tel) 34-958-243750; (fax) 34-958-246239; (e-mail) gbuela@ugr.es.

Cost

There is no cost for this measure.

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Appendix A
Quick-View Guides

Child Measures (Sheryle A. Moore)

Name of Instrument	Target Population	Type of measure	Measurement focus	Time to complete	Norms available?	Fee involved Yes/No Amount	Alternate forms
Child Measures							
Achenbach System of Empirically Based Assessment: Child Behavior Checklist, 2nd version (CBCL)	6–18 y.o.	Parent-report	Competence and behavior problems	15–20 min	Extensive	$40 manual, $50/25 forms	Spanish, Parent, Teacher Youth Versions
Behavior Assessment System for Children (BASC-2)	6–11 y.o.	Other-report	Behavior and emotion problems	20 min	Extensive	$79.99 manual, $24.99 –$799.99	Spanish, Preschool, Adolescent, Teacher, Parent versions
Berkeley Puppet Interview (BPI)	4 $\frac{1}{2}$–7 $\frac{1}{2}$ y.o.	Interview	Children's self perceptions	10–15 min	Limited	None	None
Teacher Assessment of Social Behavior	5 –7 y.o.	Teacher-report	Prosocial and problem behavior	10–15 min	None	None	None
Child Behavior Scale (CBS)	4–6 y.o.	Teacher-report	Behavior with peers	20 min	None	Contact author	None
Children's Social Behavior Scale-Teacher (CSBS-T)	Elementary	Teacher-report	Social behavior, peer acceptance	15 min	None	None	Preschool, Peer-report versions
Early Screening Project	Preschool	Other-report	Behavior disorder screening	90 min	Limited	$95 kit	None
Entry Situation	Elementary	Analogue interview	Social skills	30 min	None	Contact author	None
Home Interview with Child (HIWC)	K–3rd grade	Interview	Hostile attributions	20–30 min	Limited	None	None
Interpersonal Negotiation Strategies Interview (INS)	8–17 y.o.	Interview	Interpersonal social perceptions	15–30 min	None	None	None

Name	Age	Method	Construct	Time		Cost	Versions
Matson Evaluation of Social Skills with Youngsters (MESSY)	4–18 y.o.	Teacher-report	Social behavior	15 min	Limited	$85 manual & 75 forms	Chinese, Spanish, Portuguese versions
Personality Inventory for Children	5–19 y.o.	Parent-report	Social, behavior, cognitive, interpersonal	40 min	None	$204 kit	Spanish version
Preschool and Kindergarten Behavior Scales (PKBS)	3–6 y.o.	Other-report	Behavior and social skills	8–12 min	Extensive	$110 kit	Spanish version
Preschool Behavior Questionnaire (PBQ)	3–6 y.o.	Teacher-report	Emotional-behavioral problems	5–10 min	Limited	$30 kit	None
Preschool Social Behavior Scale (PSBS)	Preschool	Child Peer-report	Social behavior and aggression	30 min	Limited	None	Teacher
Preschool Social Behavior Scale-Teacher (PSBS-T)	Preschool	Teacher-report	Social behavior, peer acceptance & aggression	15 min	None	None	Elementary, Peer-report versions
Pupil Evaluation Inventory (PEI)	1st–9th grade	Child Peer-report	Peer perception of aggression, withdrawal and likeability	30 min	None	None	None
Pupil Evaluation Inventory (PEI)	6–15 y.o.	Teacher-report	Social behaviors	30 min	Limited	None	None
Revised Behavioral Assertiveness Test for Children (BAT-CR)	7–14 y.o.	Analogue Interview	Interpersonal skills	20 min	None	Contact author	None
School Social Behavior Scale (SSBS-2)	K–12 grades	Teacher-report	Social skills, antisocial behavior	5 min	Extensive	$50 user guide, $37 forms	None
Social Cognitive Skills Test	8–12 y.o.	Interview	Social cognitive deficits	15–20 min	Limited	Contact publisher	Dutch Version

QUICK-VIEW

(Continued)

Name of Instrument	Target Population	Type of measure	Measurement focus	Time to complete	Norms available?	Fee involved Yes/No Amount	Alternate forms
Social Competence and Behavior Evaluation-Preschool Edition	38–78 months	Teacher-report	Social competence, affective expression, adjustment	15 min	Limited	$92 kit, $45/25 forms	French version
Social Problem Solving Scale	K–2nd grade	Interview	Social problem solving	20–25 min	None	None	None
Social Skills Rating System	3rd–6th grade	Child Self-report	Pro-social skills	15–30 min	Extensive	$21.99–$999.99	Grades 7–12, Teacher, Parent versions
Student Behavior Survey	5–18 y.o.	Teacher-report	School behavior and social skills	15 min	Extensive	$95 kit	None
Taxonomy of Problematic Social Situations	Elementary	Teacher-report	Social competence	15 min	None	Contact author	None
Teacher-Child Rating Scale (T-CRS)	K–3rd grade	Teacher-report	Socio-emotional adjustment	10 min	Extensive	$35 examiner's manual, $20/25 forms	None
Matson Evaluation of Social Skills with Youngsters (MESSY)	4–18 y.o.	Child Self-report	Social skills	15 min	Extensive	$85 starter kit	Teacher, Deaf, MR, Spanish, Chinese & Turkish Versions
The Pictorial Scale of Perceived Competence and Social Acceptance for Young Children	Preschool–3rd grade	Interview	Perceived social competence and acceptance	Variable	Limited	None	Questionnaire for 8–18 y.o.
The Preschool Interpersonal Problem Solving Test (PIPS)	4–6 y.o.	Interview	Social problem solving	30 min	Limited	$17.50	Boys' and Girls' versions
Vineland-II Adaptive Behavior Scales: Parent/Caregiver Rating Form	Birth–90 y.o.	Other-report	Adaptive functioning	20–60 min	Extensive	$125 starter set	Teacher, Survey interview form, Spanish version

Adolescent Measures (Kathryn R. Wilson)

Name of Instrument	Target Population	Type of measure	Measurement focus	Time to complete	Norms available?	Fee involved Yes/No Amount	Alternate forms
Adolescent Measures							
Adaptive Behavior Inventory (ABI) Social Skills Subscale	6–18 y.o.	Teacher-report	Daily living skills	30 min	Extensive	$92 kit, $45 manual, $35/25 forms, $15/25 short forms	ABI-short form
Adolescent Assertion Expression Scale (AAES)	6th grade	Self-report	Assertiveness	20–30 min	Limited	Contact author	None
Adolescent Social Self-Efficacy Scale (S-EFF)	12–19 y.o.	Self-report	Social self-efficacy	5–10 min	Limited	Contact author	None
Behavior Assessment System for Children-Second edition (BASC-2) Social Stress and Interpersonal Relations Subscales: Self-Report of Personality-Adolescent	12–21 y.o.	Self-report	Personality, affect & self-perceptions	20–30 min	Extensive	$120 kit, $86 manual, $33/25 forms	Parent, Teacher, Spanish
Behavior Assessment System for Children-Second Edition (BASC-2) Social Skills Subscale: Parent Rating Scales-Adolescent	12–21 y.o.	Other-report	Emotional and behavioral problems	10–20 min	Extensive	$120 kit, $86 manual, $33/25 forms	Parent, teacher, Spanish versions
Behavior Assessment System for Children-Second Edition (BASC-2) Social Skills Subscale: Teacher Rating Scales-Adolescent	12–21 y.o.	Other-report	Emotional and behavioral problems	10–15 min	Extensive	$120 kit, $86 manual, $33/25 forms	Parent, teacher, Spanish versions

Measure	Age	Report	Construct	Time	Norms	Cost	Formats
Behavioral Assessment Scale for Children 2nd Ed. (BASC–2) Social Skills Subscales: Parent and Teacher Rating Scales–Adolescent	12–21 y.o.	Other-report	Adaptive and behavioral problems in community and home settings	10–20 min	Extensive	$124 examination set, $89 manual, $33.50 for 25 hand-scored forms, $28 for 25 computer-scored forms, $259 computer scoring software	Self Report of Personality, Student Observation System; Spanish versions also available
Behavioral Assessment Scale for Children 2nd Ed. (BASC–2) Social Stress and Interpersonal Relations Subscales: Self-Report of Personality–Adolescent	12–21 y.o.	Self-Report	Peer-related stress, interpersonal success	20–30 min	Extensive	$124 examination set, $89 manual, $33.50 for 25 hand-scored forms, $28 for 25 computer-scored forms, $259 computer scoring software	Parent Rating Scale, Teacher Rating Scale, Student Observation System; Spanish versions also available
Child Behavior Checklist for Ages 6–18 (CBCL) Social Competence and Social Problems Subscales	6–18 y.o.	Other-report	Behavior problems and adaptive functioning	15–20 min	Extensive	$395 kit, $40 manual, $25/50 forms	Parent, Teacher, Youth, Preschool, Online & 71 language versions
Child Behavior Checklist-Teacher's Report Form for Ages 6–18 (CBCL) Social Problems Subscales	6–18 y.o.	Teacher-report	Behavior problems & adaptive functioning	15–20 min	Extensive	$395 kit, $40 manual, $25/50 forms	Parent, Youth, Preschool, Online & 71 language versions

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Name of Instrument	Target Population	Type of measure	Measurement focus	Time to complete	Norms available?	Fee involved Yes/No Amount	Alternate forms
Children and Adolescent Social and Adaptive Functioning Scale (CAFAS)	12–14 y.o.	Self-Report	Social and adaptive functioning across multiple contexts	5–10 min	Moderate	Contact author	None
Family and Peer Process Code	Families, preadolescents and adolescent peers, and young couples	Observation	Interpersonal behaviors during family and peer interactions	Variable	None	Available online, free of charge	Three coding systems comprising the Family and Peer Process available on the web site
Home and Community Social Behavior Scales (HCSBS)	5–18 y.o.	Other-report	Social behavior problems and competence in home and community	5–10 min	Extensive	$49.95 for manual, $34.95 for 25 scoring forms	Companion to School Social Behavior Scales-2
Informal Rating Matrix (IRM)	12–15 y.o.	Teacher-report	Social skills strengths and deficits	10 min	Limited	Contact author	None
Interpersonal Competence Scale (ICS-T)	3rd–12th grades	Other-report	Social development	5 min	Limited	Contact author	None
Interpersonal Negotiation Strategy Interview (INS)	11–19 y.o.	Interview	Interpersonal conflict strategies	30–60 min	Limited	Contact author	Rating form version
Loneliness and Social Dissatisfaction Questionnaire	3rd–6th grades 11–16 y.o. w/ mild mental retardation	Self-report	Loneliness	30 min	None	Contact author	Hebrew version

Measure	Age	Format	Domain	Time	Research base	Availability	Other versions
Measure of Adolescent Heterosocial Competence (MACH)	14–18 y.o.	Self-report	Heterosocial skills	10–15 min	Limited	Contact author	Male and female versions
Multidimensional Self Concept Scale (MSCS) Social Subscale	5th–12th grades 9–19 y.o.	Self-report	Social domain of self-concept	30–40 min	Extensive	$110 kit, $55 manual, $60/50 forms	None
Problem Oriented Screening Instrument of Teenagers (POSIT) Peer Relations and Social Skills Subscales	Adolescents with a 5th grade reading level, 11–20 y.o.	Self-Report	Social skills with peers	30–40 min	Moderate	Available online via http://www.assessments.com/	Spanish version
Role-play Test	Adolescents, visually handicapped and sighted	Analog	Verbal and nonverbal social skill deficits	Variable	None	Contact author	None
Scale of Job-Related Social Skill Knowledge	15–25 y.o.	Analog	Social skills of work settings	90 min	Limited	Contact author	None
School Social Skills Rating Scale (S3)	1st–12 grades	Other-report	School-related social behaviors	10 min	None	$34 manual, $52/50 forms	None
Self-Description Questionnaire-II (SQD-II)	13–17 y.o.	Self-report	Self-concept	15–25 min	Extensive	None (permission required)	Preadolescent (5–12 y.o.) and Adult (16 y.o. to adult) versions
Social Competence Interview (SCI)	Adolescents and Adults	Interview	Identify deficits in social competence	10–14 min	Limited	Contact author	None
Social Competence Questionnaire (SCQ) – Pupil Form	8–18 y.o.	Self-report	Outcomes of peer interactions	5–10 min	Limited	Contact author	Parent, teacher
Social Competence Questionnaire (SCQ) – Parent and Teacher forms	8–18 y.o.	Other-report	Outcomes of peer interactions at home and school	5 min	Limited	Contact author	Self-report form
Social Competence Scale	15–16 y.o.	Observation	Peer group social competence	–	Limited	Contact author	None

(Continued)

(Continued)

Name of Instrument	Target Population	Type of measure	Measurement focus	Time to complete	Norms available?	Fee involved Yes/No Amount	Alternate forms
Social Problem-Solving Inventory for Adolescents (SPSI-A)	14–16 y.o.	Self-report	Social and personal problem solving	20–30 min	Extensive	Contact author	None
Social Skills Questionnaire (SSQ)-Pupil Form	8–18 y.o.	Self-report	Social skill deficits	15–20 min	Limited	Contact publisher	Parent, teacher
Social Skills Rating System (SSRS)-Student Questionnaire (Secondary Level)	Grades 7–12	Self-Report	Social and problem behaviors	10–25 min	Extensive	$125 Starter Kit, $259 computer scoring	Teacher and parent questionnaires
Social Skills Rating System (SSRS)-Parent Questionnaire (Secondary Level)	7th–12th grades	Parent-report	Social behaviors	10–25 min	Extensive	$125 Starter Kit, $259 computer scoring	Teacher, Preschool, Elementary versions
Social Skills Rating System (SSRS)-Teacher Questionnaire (Secondary Level)	7th–12th grades	Teacher-report	Social behaviors	10–25 min	Extensive	$125 Starter Kit, $259 computer scoring	Parent, Preschool, Elementary versions
Student Self-Concept Scale (SSCS)-Level 2 Student Questionnaire	7th–12th grades	Self-report	Self-concept/ efficacy	20–30 min	Extensive	$70 manual, $49/25 forms	3rd–6th grade version
Teenage Inventory of Social Skills (TISS)	9th–12th grades, 14–16 y.o.	Self-report	Social skills deficits, intervention	5–10 min	Extensive	Contact author	None

QUICK-VIEW

Name	Age	Format	Target	Time	Norms	Cost	Other versions
Test of Community-Based Social Skill Knowledge	15–25 y.o.	Analog	Peer social skills in community contexts	1 h	Extensive	Contact author	Male and Female versions
Student Behavior Survey (SBS) Social Skills and Social Problems Subscales	5–19 y.o.	Other-report	Emotional and behavioral maladjustment	15 min	Extensive	$95 Kit, $40/25 forms	None
Transition Competence Battery for Deaf Adolescents and Young Adults (TCB) Job Related Social and Interpersonal Skills Subscale	Deaf 18–19 y.o.	Self-report	Work and social skills	1.5 hr	Limited	$399 kit	Video Sign Language version
Vineland Adaptive Behavior Scales, 2nd Edition: Survey Interview Form	Birth–90 y.o.	Interview	Adaptive functioning.	20–60 min	Extensive	$150 starter set; $325 with computer scoring	Spanish version
Waksman Social Skills Rating Scale (WSSRS)	K–12th grades	Other-report	Social skills deficits	5 min	Limited	$40 kit, $20/25 forms	None
Walker-McConnell Scale of Social Competence and School Adjustment (SSCSA)-Adolescent Version	7th–12th grades	Teacher-report	Social-behavioral adjustment and social skills deficits	5 min	Extensive	$101 kit	Elementary version
Youth Self-report (YSR) Social Competence and Social Problems Subscales	11–18 y.o.	Self-report	Social and behavioral problems	15–20 min	Extensive	$325 kit, $40 manual, $25/50 forms	Parent, teacher, online, 71 languages

Adult Measures (Peter J. Norton)

Name of Instrument	Target Population	Type of measure	Measurement focus	Time to complete (minutes)	Norms available?	Fee involved Yes/No Amount	Alternate forms
Adult Measures							
Assertion Inventory	Adult	Self-report	Assertive behavior	10–15	None	No	None
Assertion Self-Statement Test	Adult	Self-report	Assertive cognitions	10–15	Extensive	No	Revised version
Assessment of Interpersonal Problem-Solving Skills	Adult	Observational	Identify interpersonal problems, enact solutions	30	Limited	No	None
Behavioral Assertiveness Test–Revised	Adult	Observational	Assertive behavior	–	Moderate	No	Short-version, Children's version
Behavioral Role-Playing Assertion Test	Adult	Observational	Assertive behavior	–	None	No	None
Dating and Assertion Questionnaire	Adult	Self-report	Dating and assertive behavior	5–10	Limited	No	None
Ideographic Role-Play Test	Adult	Observational	Assertive behavior	90	None	No	None
Interpersonal Competence Questionnaire	Adult	Self-report	Social skills across domains	10–15	Moderate	No	Adolescent, French, short-version
Inventory of Interpersonal Problems	Adult	Self-report	Sources of interpersonal distress	20–30	Limited	No	Italian, short-version
Rathus Assertiveness Schedule	Adult	Self-report	Assertive behavior	10–15	Moderate	No	Short-version, simplified version, Swedish
Scale for Interpersonal Behavior	Adult	Self-report	Assertive behavior and discomfort	15–20	Extensive	No	French, short-version, Italian, Spanish, Swedish, Turkish

Instrument	Age	Method	Construct	Time (min)	Research	Cost	Languages
Self-Monitoring Scale	Adult	Self-report	Sensitivity to other's expressive behavior	5–10	Limited	No	German, Revised version, short-version
Simulated Social Interaction Test	Adult	Observation	Social skills	30–45	Moderate	No	None
Social Functioning Scale	Adult	Self-report	Social and interpersonal functioning	15–20	Extensive	No	Spanish
Social Interaction Test	Adult	Observation	Social Skills	10–15	None	No	None
Social Skill Behavioral Assessment System	Adult	Observation	Social skills	15	None	No	None
Social Skills Inventory	Adult	Self-report	Social communication skills	20–30	Limited	$40 manual/sample kit, $100–300 for permissions	Japanese
Wolpe-Lazarus Assertiveness Schedule	Adult	Self-report	Social skill deficits	10–15	Moderate	No	American English, British English

Appendix B
Reprints of Selected Measures

CHILD MEASURES

The Relationship Questionnaire: The Assessment of Psychosocial Maturity in Children and Adolescents

Introduction (to be read aloud to the students):

- The following instructions are suggestions ONLY, designed to give you a sense of how the researchers have presented this questionnaire in the past. It is anticipated that teachers will present the questionnaire in a manner they feel is appropriate for their own unique classroom situation.

READ: You are going to hear some stories about animals and how they act. For each story, you will hear some questions about the animals in the story. You must listen closely to what the animals do in the stories so that you can decide if you think what the animals did or said was bad, okay, good, or excellent.

If what the animals say or do is bad, you will circle the sad face. If what the animals say or do is okay, you will circle the straight face. If what the animals say or do is good, you will circle the happy face. And if what the animals say or do is excellent, circle the happy face with the star over it.

These questions are to see how __-graders think. Everyone's answers will be different, but no one's answers can be wrong. I want to know what everyone thinks, not just what the person sitting next to you or your friend thinks. So, be sure to answer the way YOU think.

Let's do the first story together.

Sample Question

READ: Find the bell at the top of the page. If you see a bell at the top of the page, you are on the right page. Do not turn the page until I tell you to turn the page.
The first story is called "Fire Drill."

There was a fire drill at Animal Elementary School. When the fire drill bell rings, everyone is supposed to line up and wait quietly for the teacher's directions. Listen to what four of the animals did when the fire drill bell rang. Decide if what each animal did was BAD, OKAY, GOOD, or EXCELLENT.

A. Put your finger on the picture of the **FOX**. When the bell rang, **FOX ran out of the class into the hall**. Circle the face to show if this was a BAD, OKAY, GOOD, or EXCELLENT thing to do when the fire drill bell rang.
B. Put your finger on the picture of the **CHICKEN**. When the fire drill bell rang, **CHICKEN quietly and quickly lined up to wait for the teacher's directions**. Circle the face to show if this was a BAD, OKAY, GOOD, or EXCELLENT thing to do when the fire drill bell rang.
C. Put your finger on the picture of the **PIG**. When the fire drill bell rang, **PIG ran to line up**. Circle the face to show if this was a BAD, OKAY, GOOD, or EXCELLENT thing to do when the fire drill bell rang.
D. Put your finger on the picture of the **RABBIT**. When the fire drill bell rang, **RABBIT talked while walking to the line**. Circle the face to show if this was a BAD, OKAY, GOOD, or EXCELLENT thing to do when the fire drill bell rang.
E. Look at the last row with all of the animals. Circle the picture of the animals in that row that did what you would have done. Circle only ONE animal.

Now, let's go over your answers.

Put your finger on the **FOX** at the top of the page. Look at the faces in that row. Raise your hand and I will call on someone to tell me which face they circled. (Call on one student.)
ASK: (*Name of student*), what face did you circle? (Let the student respond.)
SAY: Good! Raise your hand if you circled a different face. (Call on another student.)
ASK: (*Name of student*), what face did you circle? (Let the student respond.)
SAY: Good!
ASK: Class, is (*student's name*)'s answer wrong?
SAY: No, of course not—because whatever each of you think is right. There are no wrong answers. You can each have different answers.

Raise your hand if you circled a face that (*first student's name*) and (*second student's name*) did not.

ASK: (*Student's name*), what face did you circle? (Let student respond.) Class, is (*student's name*)'s answer right?

SAY: Yes, of course it's right. If it's what *you* really think, then it's right.

READ: Now you will do two stories on your own. I will read the story to you, and then I will read the questions to you. You answer the questions by circling one of the faces. Do not call out your answers. We can talk about the stories when we have finished all of the questions, but not before.

STORY #1: Giraffe, the Teacher

SAY: Turn to the next page. Find the **GIRAFFE** at the top of the page. If you see the giraffe at the top of the page, you are on the right page.

READ: Story number one: "Giraffe, the Teacher."

Giraffe is a teacher. All of the students in Giraffe's class think she is a good teacher but they all have different reasons for why they think so.

    A. Put your finger on the picture of the duck. **Duck thinks Giraffe is a good teacher because Giraffe helps the students learn how to read.** Circle the face to show if this reason is BAD, OKAY, GOOD, or EXCELLENT.

    B. Put your finger on the picture of the goat. **Goat thinks Giraffe is a good teacher because Giraffe gives all the students stickers.** Circle the face to show if this reason is BAD, OKAY, GOOD, or EXCELLENT.

    C. Put your finger on the picture of the cat. **Cat thinks Giraffe is a good teacher because Cat wants all of the students to do well.** Circle the face to show if this reason is BAD, OKAY, GOOD, or EXCELLENT.

    D. Put your finger on the picture of the hippo. **Hippo thinks that Giraffe is a good teacher because Giraffe smiles a lot.** Circle the face to show if you think this reason is BAD, OKAY, GOOD, or EXCELLENT.

    E. Look at the last row with all of the animals in it. Circle the animal that you think had the best reason for thinking that Giraffe is a good teacher. Circle only **ONE** animal. **(REREAD all of the animals' solutions in bold)**

STORY #2: Cow and the Crayon

SAY: Turn to the page with the cow at the top. If you do not see a cow at the top of the page you are on the wrong page. Find the page with the cow at the top.

READ: Story number two: "Cow and the Crayon."

Cow, Zebra, Porcupine, Lamb and Kangaroo are all in the same class at school. There is one box of crayons in the classroom, so when they draw they have to share crayons. Cow is using a color crayon that everyone else wants to use.

    A. Put your finger on the picture of the zebra. **Zebra takes the crayon when Cow goes to get a drink of water.** Circle the face to show if you think this is a BAD, OKAY, GOOD, or EXCELLENT way to get the crayon.

    B. Put your finger on the picture of the porcupine. **Porcupine says that Cow has to give him the crayon so he can finish his picture before the end of school.** Circle the face to show whether this is a BAD, OKAY, GOOD, or EXCELLENT way to get the crayon.

    C. Put your finger on the picture of the lamb. **Lamb asks Cow if he can trade her for another color crayon so he can use the color crayon that cow is using.** Circle the face to show is this is a BAD, OKAY, GOOD, or EXCELLENT way to get the crayon.

    D. Put your finger on the picture of the kangaroo. **Kangaroo tells Cow that she will wait for the crayon but asks Cow to hurry.** Circle the face to show if you think that this is a BAD, OKAY, GOOD, or EXCELLENT way to get the crayon.

    E. Circle the picture of the animal who had the best way of getting the crayon. Circle only **ONE** animal. (**REREAD all of the animals' solutions in bold**)

STORY #3: Who Can Lion Trust?

SAY: Turn the page. You should see a lion at the top of the page. If you do not see a lion, you are on the wrong page. Find the page with the lion at the top.

READ: Story number three: "Who Can Lion Trust?"

It was Lion's first day at a new school. **Lion** wants to know who he can trust to be his friend at the new school.

A. Put your finger on the picture of the elephant. **Elephant says, "You can trust me, Lion, because I will always do what you tell me to do."** Circle the face to show if you think this is a BAD, OKAY, GOOD, or EXCELLENT reason to trust someone to be your friend.
B. Put your finger on the picture of the horse. **Horse says, "You can trust me, Lion, because I will always sit next to you in school."** Circle the face to show if you think this is a BAD, OKAY, GOOD, or EXCELLENT reason to trust someone to be your friend.
C. Put your finger on the picture of the zebra. **Zebra says, "You can trust me, Lion, because I will never tell your secrets."** Circle the face to show if you think this is a BAD, OKAY, GOOD, or EXCELLENT reason to trust someone to be your friend.
D. Put your finger on the picture of the tiger. **Tiger says, "You can trust me, Lion, because I will give you presents."** Circle the face to show if you think this is a BAD, OKAY, GOOD, or EXCELLENT reason to trust someone to be your friend.
E. Look at the row of animals at the bottom of the page. Circle the animal you think gave the best reason for trusting someone. Circle only **ONE** animal. **(REREAD all the animals' solutions in bold)**

STORY #4: Alligator Cuts in Line

SAY: Turn to the page with the Alligator at the top.
READ: Story number four: "Alligator cuts in line."
It was time for lunch and everyone was hungry. The teacher said, "Line up for lunch!" When the Alligator got to the line, she cut in line in front of the other students.

A. Put your finger on the picture of the rooster. When Alligator cut in front of Rooster, **Rooster pushed Alligator**. Circle the face to show if you think what Rooster did when Alligator cut the line is BAD, OKAY, GOOD, or EXCELLENT.
B. Put your finger on the picture of the pig. When Alligator cut in front of Pig, **Pig told the teacher**. Circle the face to show if you think what Pig did when Alligator cut the line is BAD, OKAY, GOOD, or EXCELLENT.
C. Put your finger on the picture of the camel. When Alligator cut in front of Camel, **Camel called Alligator a cheater**. Circle the face to show if what Camel did when Alligator cut the line is BAD, OKAY, GOOD, or EXCELLENT.
D. Put your finger on the picture of the moose. When Alligator cut in line in front of Moose, **Moose told Alligator that cutting the line is not fair**. Circle the face to show if what Moose did when Alligator cut the line is BAD, OKAY, GOOD, or EXCELLENT.
E. Look at the row with all the animals in it at the bottom of the page. Circle the animal that did the best thing when Alligator cut the line. Circle only **ONE** animal. **(REREAD each animals' reason in bold.)**

STORY #5: Friends with Goat

SAY: Turn the page. You should see a goat at the top of the page. If you don't see a goat at the top of the page, you are on the wrong page. Find the page with the goat at the top.
READ: Story number five: "Friends with Goat"
Monkey, Dog, Panda, and Koala are all Goat's friends. One day, they all said why they were friends with Goat.

    A. Put your finger on the picture of the monkey. **Monkey is friends with Goat because they like to play the same games.** Circle the face to show if you think this is a BAD, OKAY, GOOD, or EXCELLENT reason for being someone's friend.

    B. Put your finger on the picture of the dog. **Dog is friends with Goat because they live on the same street.** Circle the face to show if you think this is a BAD, OKAY, GOOD, or EXCELLENT reason for being someone's friend.

    C. Put your finger on the picture of the panda. **Panda is friends with Goat because Goat shares her toys with Panda.** Circle the face to show if you think this is a BAD, OKAY, GOOD, or EXCELLENT reason for being someone's friend.

    D. Put your finger on the picture of the koala. **Koala is friends with Goat because they tell each other how they feel.** Circle the face to show if you think this is a BAD, OKAY, GOOD, or EXCELLENT reason for being someone's friend.

    E. Look at the row with all the animals in it at the bottom of the page. Circle the animal who had the best reason for being friends with Goat. Circle only **ONE** animal. **(REREAD all of the animals' solutions in bold.)**

STORY #6: Wolf's Lost Teddy Bear

SAY: Turn to the page with the wolf at the top.
READ: Story number six: "Wolf's Lost Teddy Bear"
All of Wolf's friends had been thinking about what to get Wolf for her birthday. Then, the day before her birthday party, Wolf lost her very favorite teddy bear. When she found out it was lost, she cried and said to her friends, "Nothing can ever replace my teddy bear!" After that, all of Wolf's friends talked about what to get Wolf for her birthday.

    A. **Polar Bear decided to get Wolf a puzzle because Wolf had said she didn't want another teddy bear.** Circle the face to show is this is a BAD, OKAY, GOOD, or EXCELLENT present to get Wolf.

    B. **Buffalo decided to get Wolf a new teddy bear because Wolf didn't really mean it when she said nothing could replace it.** Circle the face to show is this is a BAD, OKAY, GOOD, or EXCELLENT present to get Wolf.

    C. **Seal thought Wolf's parents would know what she really wants for her birthday, so Seal will ask them what to get her.** Circle the face to show is this is a BAD, OKAY, GOOD, or EXCELLENT present to get Wolf.

    D. **Gorilla decided to get Wolf a hand puppet because Gorilla really likes puppets.** Circle the face to show is this is a BAD, OKAY, GOOD, or EXCELLENT present to get Wolf.

    E. Look at the last row with all the animals in it. Circle the animal that you think had the best idea for getting Wolf a birthday present. Circle only **ONE** animal. **(REREAD all the animals' solutions in bold.)**

STORY #7: Rabbit Breaks a Playdate

SAY: Turn to the page with a picture of Kitten and Rabbit at the top.
READ: Story number seven: "Rabbit Breaks a Playdate"
Kitten and Rabbit scheduled a play date for Kitten's house. But Rabbit's mom says she must take Rabbit shopping for her school clothes on that same day. Rabbit calls Kitten to tell her she can't come over and gets the answering machine. Here are some things Rabbit might do:

A. **Rabbit leaves a message, "My mother is taking me shopping – I'll call you when I get back."** Circle the face to show if you think what Rabbit did is BAD, OKAY, GOOD, or EXCELLENT.
B. **Rabbit hangs up the phone because Kitten didn't answer.** Circle the face to show if you think what Rabbit did is BAD, OKAY, GOOD, or EXCELLENT.
C. **Rabbit leaves the message, "I can't play today – I'm busy."** Circle the face to show if you think what Rabbit did is BAD, OKAY, GOOD, or EXCELLENT.
D. **Rabbit leaves the message, "I hope you're not upset, but my mom had to take me shopping today. I'm sorry we couldn't play today and I'll call you when I get back."** Circle the face to show if you think what Rabbit did is BAD, OKAY, GOOD, or EXCELLENT.
E. Now I am going to read all four of Rabbit's choices again very slowly, and you can circle the one you think is the very best. Circle only **ONE**.

STORY #8: The Wet Puppy

SAY: Turn to the page with the picture of the puppy at the top.
READ: Story number eight: "The Wet Puppy"
Before he leaves the house to go to the store, Holly's father tells her to put their new puppy outside in the yard so it can get some exercise, and not to let it in until he gets back. After a while, it starts to rain, and the puppy scratches at the door to get in the house. Holly is playing with some friends inside and is trying to decide if it is okay to let the puppy back into the house before her Dad comes back home. Listen to the advice each of Holly's friends gives her.

A. **Turkey says, "Let the dog in, Holly, because we want to play with it."** Circle the face that shows whether you think this is BAD, OKAY, GOOD, or EXCELLENT advice.
B. **Walrus says, "Let the puppy in because your Dad will understand that you knew he didn't mean that the puppy should be out in bad weather."** Circle the face that shows whether you think this is BAD, OKAY, GOOD, or EXCELLENT advice.
C. **Leopard says, "Let the puppy in because your Dad knows how much you like the puppy, and you don't want it to get wet."** Circle the face that shows whether you think this is BAD, OKAY, GOOD, or EXCELLENT advice.
D. **Llama says, "Let the puppy in because it is getting wet and it wants to come in."** Circle the face that shows whether you think this is BAD, OKAY, GOOD, or EXCELLENT advice.
E. Look at the bottom of your paper where all the animals are lined up in a row. Now, I will reread what each animal said, and I want you to circle the picture of the animal that you think made the best decision about the puppy. Circle only **ONE** picture.

STORY #9: Crow and Cat

SAY: Turn to the next page. Find the Crow at the top of the page. If you see the crow at the top of the page, you are on the right page.

READ: Story number nine: "Crow and Cat."
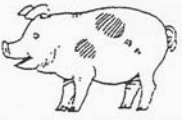
Crow and Cat were playing together at Crow's house one rainy day. Crow wanted to play outside and splash in the puddles, but Cat wanted to stay in where it was dry and watch a movie. They couldn't decide what to do for a long time. Crow thought of four ways to figure out what to do. Decide if Crow's ideas are BAD, OKAY, GOOD, or EXCELLENT.

A. **Crow could tell Cat, "If you play outside with me, I'll let you use my Game Boy later."** Circle the face to show if this is a BAD, OKAY, GOOD, or EXCELLENT way to decide what to do.

B. **Crow could go outside to splash in puddles, and hope that Cat would decide to join him.** Circle the face to show if this is a BAD, OKAY, GOOD, or EXCELLENT way to decide what to do.

C. **Crow could say to Cat, "Since we can't agree about what to do, let's flip a coin."** Circle the face to show if this is a BAD, OKAY, GOOD, or EXCELLENT way to decide what to do.

D. **Crow could tell Cat, "It's my house so we have to play outside."** Circle the face to show if this is a BAD, OKAY, GOOD, or EXCELLENT way to decide what to do.

E. Look at the last row with all the crows lined up. Circle the picture of the Crow who is doing what you would have done if you and a friend could not agree on what to play.

SAMPLE ANSWER SHEET

© Group for the Study of Interpersonal Development

1

Giraffe, the Teacher

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Scoring Guide for the GSID Relationship Questionnaire K-3 Version

1. Giraffe, the Teacher (*interpersonal understanding*)

	Level	Rank Order	P	A	G	E
a.	2	3	1	2	2.5	2
b.	1	2	2	2.5	2	1
c.	2/3	4	0	1	2	2.5
d.	0	1	2.5	2	1	0

2. Cow and the Crayon (*interpersonal skills/conflict resolution*)

	Level	Rank Order	P	A	G	E
a.	0	1	2	1.5	1	0
b.	1	2	1.5	2	1.5	1
c.	2	4	0	1	1.5	2
d.	1/2	3	1	1.5	2	1.5

3. Who Can Lion Trust? (*interpersonal understanding*)

	Level	Rank Order	P	A	G	E
a.	1/2	3	1	1.5	2	1.5
b.	0	1	2	1.5	1	0
c.	2	4	0	1	1.5	2
d.	1	2	1.5	2	1.5	1

4. Alligator Cuts In Line (*interpersonal skills/conflict resolution*)

	Level	Rank Order	P	A	G	E
a.	0	1	2	1.5	1	0
b.	1/2	3	1	1.5	2	1.5
c.	1	2	1.5	2	1.5	1
d.	2	4	0	1	1.5	2

5. Friends with Goat (*interpersonal understanding*)

	Level	Rank Order	P	A	G	E
a.	1	2	1.5	2	1.5	1
b.	0	1	2	1.5	1	0
c.	1/2	3	1	1.5	2	1.5
d.	2	4	0	1	1.5	2

6. Wolf's Lost Teddy Bear (*perspective taking*)

	Level	Rank Order	P	A	G	E
a.	1	2	1.5	2	1.5	1
b.	1/2	3	1	1.5	2	1.5
c.	2	4	0	1	1.5	2
d.	0	1	2	1.5	1	0

7. Rabbit Breaks a Playdate (*perspective taking*)

	Level	Rank Order	P	A	G	E
a.	1/2	3	1	1.5	2	1.5
b.	0	1	2	1.5	1	0
c.	1	2	1.5	2	1.5	1
d.	2	4	0	1	1.5	2

8. The Wet Puppy (*perspective taking*)

	Level	Rank Order	P	A	G	E
a.	0	1	2.5	2	1	0
b.	2/3	4	0	1	2	2.5
c.	2	3	1	2	2.5	2
d.	1	2	2	2.5	2	1

9. Crow and Cat (*interpersonal skills/conflict resolution*)

	Level	Rank Order	P	A	G	E
a.	1	3	0.5	1	2	1
b.	0	1	2	1	0.5	0
c.	2	4	0	0.5	1	2
d.	0/1	2	1	2	1	0.5

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Teacher Assessment of Social Behavior

Based on your personal observations and impressions of your students' behavior, please circle the number that indicates the extent to which each of the 12 following descriptions is characteristic of each child's social interactions with other students at school (not with teachers or other adults).

1. This child is cooperative with other children – he/she shares and takes turns.
2. This child starts fights.
3. This child is shy/withdrawn.
4. This child interrupts other children.
5. This child is friendly and nice to other children.
6. This child is mean to other children.
7. This child does not play or work much with other children.
8. This child acts up in class.
9. This child is helpful toward other children.
10. This child hurts other children.
11. This child seems fearful about being with other children.
12. This child disrupts other children's activities.

Teacher Assessment of Social Behavior – Sample Response Sheet

1. Item number and item are typed here

Instructions: Please circle the number that best describes each child.

		Very Uncharacteristic	Neutral		Very Characteristic
1-A.	Student ID Number Here _____	1	2 3	4	5
1-B.	_____	1	2 3	4	5
1-C.	_____	1	2 3	4	5
1-D.	_____	1	2 3	4	5
1-E.	_____	1	2 3	4	5
1-F.	_____	1	2 3	4	5
1-G.	_____	1	2 3	4	5
1-H.	_____	1	2 3	4	5
1-I.	_____	1	2 3	4	5
1-J.	_____	1	2 3	4	5
1-K.	_____	1	2 3	4	5
1-L.	_____	1	2 3	4	5

Scoring

Prosocial: Items 1, 5, 9
Aggressive: Items 2, 6, 10
Shy/Withdrawn: Items 3, 7, 11
Disruptive: Items 4, 8, 12

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Taxonomy of Problematic Social Situations for Children (TOPS)

Directions: This scale attempts to identify the kinds of situations that are most likely to cause problems for this child. For each situation, please rate how likely this child is to respond in an inappropriate manner (by hitting peers, aggressive verbally, crying, disrupting the group, withdrawing, appealing to the teacher for help, or behaving in some other immature, unacceptable, and unsuccessful way). In other words, how much of a problem is this situation for this child? This information can be used in designing the most effective intervention possible.

Use the following scale to answer:
    Circle 1 if this situation is *never* a problem for this child.
    Circle 2 if this situation is *rarely* a problem for this child.
    Circle 3 if this situation is *sometimes* a problem for this child.
    Circle 4 if this situation is *usually* a problem for this child.
    Circle 5 if this situation is *almost always* a problem for this child.

For example:
     Item 20: When this child is teased by peers. If you feel that, when this child is teased by peers, he or she almost always responds inappropriately or ineffectively (such as by crying), you would agree that this is a problem for this child and would circle 5. If you feel that when this situation occurs this child almost always responds in an effective and appropriate manner (such as ignoring the teasing), you would agree that

this is not a problem situation for this child and would circle 1. Remember, we are less interested in how frequently this situation occurs, and more interested in this child's response when it does occur.

Does this child experience problems in these situations?

1. When this child is working on a class project that requires sharing or cooperation.

1	2	3	4	5
Never	Rarely	Sometimes	Usually	Almost always

2. When peers notice that this child is somehow different (for example, wearing peculiar clothes, or walking strangely).

1	2	3	4	5
Never	Rarely	Sometimes	Usually	Almost always

3. When this child has won a game against a peer.

1	2	3	4	5
Never	Rarely	Sometimes	Usually	Almost always

4. When a peer takes this child's turn during a game.

1	2	3	4	5
Never	Rarely	Sometimes	Usually	Almost always

5. When this child is playing a game with a peer and realizes that the peer is about to win.

1	2	3	4	5
Never	Rarely	Sometimes	Usually	Almost always

6. When peers call this child a bad name.

1	2	3	4	5
Never	Rarely	Sometimes	Usually	Almost always

7. When a peer is allowed a privilege (such as winning a prize or standing first in line) that this child cannot enjoy.

1	2	3	4	5
Never	Rarely	Sometimes	Usually	Almost always

8. When a peer performs better than this child in a game.

1	2	3	4	5
Never	Rarely	Sometimes	Usually	Almost always

9. When this child asks a peer to play, and the peer chooses to play with a third child instead.

1	2	3	4	5
Never	Rarely	Sometimes	Usually	Almost always

10. When a peer performs better than this child at schoolwork.

1	2	3	4	5
Never	Rarely	Sometimes	Usually	Almost always

11. When peers laugh at this child for having difficulty in a game or play activity.

1	2	3	4	5
Never	Rarely	Sometimes	Usually	Almost always

12. When this child performs better than a peer in a game.

1	2	3	4	5
Never	Rarely	Sometimes	Usually	Almost always

13. When peers laugh at this child for having difficulty with a schoolwork problem.

1	2	3	4	5
Never	Rarely	Sometimes	Usually	Almost always

14. When this child performs better than a peer at schoolwork.

1	2	3	4	5
Never	Rarely	Sometimes	Usually	Almost always

15. When this child is having difficulty with a particular schoolwork problem.

1	2	3	4	5
Never	Rarely	Sometimes	Usually	Almost always

16. When a peer has something belonging to this child, and this child wants it back.

1	2	3	4	5
Never	Rarely	Sometimes	Usually	Almost always

17. When this child finds out that he or she has been left out of a group, game or activity of peers.

1	2	3	4	5
Never	Rarely	Sometimes	Usually	Almost always

18. When this child has something belonging to a peer and the peer wants it back before this child is finished with it.

1	2	3	4	5
Never	Rarely	Sometimes	Usually	Almost always

19. When this child is playing with a peer and the peer accidentally breaks this child's toy.

1	2	3	4	5
Never	Rarely	Sometimes	Usually	Almost always

20. When this child is teased by peers.

1	2	3	4	5
Never	Rarely	Sometimes	Usually	Almost always

21. When a group of peers have started a club or a group and have not included this child.

1	2	3	4	5
Never	Rarely	Sometimes	Usually	Almost always

22. When this child want to play with a group of peers who are already playing a game.

1	2	3	4	5
Never	Rarely	Sometimes	Usually	Almost always

23. When this child tries to join in with a group of peers who are playing a game, and they tell him or her to wait until they are ready.

1	2	3	4	5
Never	Rarely	Sometimes	Usually	Almost always

24. When this child is accidentally provoked by a peer (such as a peer who accidentally bumps into this child in a line).

1	2	3	4	5
Never	Rarely	Sometimes	Usually	Almost always

25. When this child is asked by a peer to share his or her toy or game (or pencil, or some other object).

1	2	3	4	5
Never	Rarely	Sometimes	Usually	Almost always

26. When the teacher asks this child to work on a class assignment that will take a long time and will be difficult.

1	2	3	4	5
Never	Rarely	Sometimes	Usually	Almost always

27. When the teacher is trying to speak to the entire class.

1	2	3	4	5
Never	Rarely	Sometimes	Usually	Almost always

28. When this child is standing in a line with peers and must wait a long time.

1	2	3	4	5
Never	Rarely	Sometimes	Usually	Almost always

29. When this child is in the playgroup and a teacher is not nearby.

1	2	3	4	5
Never	Rarely	Sometimes	Usually	Almost always

30. When this child is in the classroom with peers and the teacher must leave the room for a short period of time.

1	2	3	4	5
Never	Rarely	Sometimes	Usually	Almost always

31. When this child is seated at lunch with a group of peers and a teacher is not nearby.

1	2	3	4	5
Never	Rarely	Sometimes	Usually	Almost always

32. When a peer tries to start a conversation with this child.

1	2	3	4	5
Never	Rarely	Sometimes	Usually	Almost always

33. When this child is sad, and a peer asks him or her how he or she is feeling.

1	2	3	4	5
Never	Rarely	Sometimes	Usually	Almost always

34. When a peer has a toy, game or object that this child wants.

1	2	3	4	5
Never	Rarely	Sometimes	Usually	Almost always

35. When this child has an extra toy and a peer asks him or her to share it.

1	2	3	4	5
Never	Rarely	Sometimes	Usually	Almost always

36. When a peer expresses anger at this child.

1	2	3	4	5
Never	Rarely	Sometimes	Usually	Almost always

37. When a peer has performed quite well at a task and is deserving of a compliment from this child.

1	2	3	4	5
Never	Rarely	Sometimes	Usually	Almost always

38. When a peer is troubled, worried or upset and needs comfort from this child.

1	2	3	4	5
Never	Rarely	Sometimes	Usually	Almost always

39. When a peer has been helpful to this child, and this child should thank him or her.

1	2	3	4	5
Never	Rarely	Sometimes	Usually	Almost always

40. When a peer cuts into a line in front of this child.

1	2	3	4	5
Never	Rarely	Sometimes	Usually	Almost always

41. When a peer tries to talk with this child.

1	2	3	4	5
Never	Rarely	Sometimes	Usually	Almost always

42. When this child has accidentally hurt a peer and should apologize.

1	2	3	4	5
Never	Rarely	Sometimes	Usually	Almost always

43. When this child needs help from a peer and should ask for help.

1	2	3	4	5
Never	Rarely	Sometimes	Usually	Almost always

44. When this child loses a game with peers.

1	2	3	4	5
Never	Rarely	Sometimes	Usually	Almost always

Scoring:

Add the score for each of the listed items and then divide by the number of items in that subscale.

Peer Group Entry: Items 9, 17, 21, 22, 23
Response to Provocation: Items 4, 6, 16, 18, 19, 20, 24, 34, 36, 40
Response to Failure: Items 2, 5, 7, 8, 10, 11, 13, 15, 44
Response to Success: Items 3, 12, 14
Social Expectations: Items 1, 25, 32, 33, 35, 37, 38, 39, 41, 42, 43
Teacher Expectations: Items 26, 27, 28, 29, 30, 31

For Total Score, add together all item scores and divide by 44 (total number of items).

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ADOLESCENT MEASURES

Adolescent Social Self-Efficacy Scale

Instructions: Please read the following statements and decide how **hard** or **easy** it would be for you to do each one.

Circle the number which corresponds to the level of difficulty.

	Impossible	Very Hard	Hard	A Bit Hard	Easy	Very Easy	Extremely Easy
1. Start a conversation with a boy or girl who you don't know very well.	1	2	3	4	5	6	7
2. Express your opinion to a group of kids discussing a subject which is of interest to you.	1	2	3	4	5	6	7
3. Join a group of kids in the school cafeteria for lunch.	1	2	3	4	5	6	7
4. Work on a project with a student who you don't know very well.	1	2	3	4	5	6	7
5. Help a new student feel comfortable with your group of friends.	1	2	3	4	5	6	7
6. Share with a group of kids an interesting experience you once had.	1	2	3	4	5	6	7
7. Put yourself into a new and different social situation.	1	2	3	4	5	6	7
8. Volunteer to help organize a school dance.	1	2	3	4	5	6	7
9. Ask a group of kids who are planning to go to a movie if you can join them.	1	2	3	4	5	6	7
10. Stand up for your rights when someone accuses you of doing something you didn't do.	1	2	3	4	5	6	7
11. Get invited to a party that's being given by one of the most popular kids in class.	1	2	3	4	5	6	7
12. Keep up your side of the conversation.	1	2	3	4	5	6	7
13. Be involved in group activities.	1	2	3	4	5	6	7
14. Find someone to spend recess with.	1	2	3	4	5	6	7

REPRINTS

15. Wear the kind of clothes that you like even though they may be different from what others wear.	1	2	3	4	5	6	7
16. In a line-up, tell a student who pushes in front of you to wait his or her turn.	1	2	3	4	5	6	7
17. Stand up for yourself when another kid in your class makes fun of you.	1	2	3	4	5	6	7
18. Help a student who is visiting your school for a short time have fun and interesting experiences.	1	2	3	4	5	6	7
19. Join a school club or sports team.	1	2	3	4	5	6	7
20. Express your feelings to another kid.	1	2	3	4	5	6	7
21. Ask someone over to your house on a Saturday.	1	2	3	4	5	6	7
22. Ask someone to go to a school dance or movie with you.	1	2	3	4	5	6	7
23. Go to a party where you are sure you won't know any of the kids.	1	2	3	4	5	6	7
24. Ask another student for help when you need it.	1	2	3	4	5	6	7
25. Make friends with kids your age.	1	2	3	4	5	6	7

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Child and Adolescent Social and Adaptive Functioning Scale (CASAFS)

Below is a list of items that describe people. Please **circle** the number for each item that best describes you. If the item 'NEVER' describes you circle the '1', if it 'SOMETIMES' describes you circle the '2', if it 'OFTEN' describes you circle the '3' and if it 'ALWAYS' describes you circle the '4'. Some of the family questions may not apply to everyone so if this is the case for you, please circle the 'DOES NOT APPLY' response.

	Never	Sometimes	Often	Always	
1. I get good marks in Math/Arithmetic	1	2	3	4	
2. I go out to places with my friends	1	2	3	4	
3. I have a good relationship with my mother	1	2	3	4	Does not apply to me
4. I help around the house	1	2	3	4	
5. I get good marks in Science	1	2	3	4	
6. I have friends of the opposite sex	1	2	3	4	
7. I have a good relationship with my father	1	2	3	4	Does not apply to me
8. I keep my room and belongings tidy	1	2	3	4	
9. I get good marks in Social Science and/or History	1	2	3	4	
10. I go to parties or school dances	1	2	3	4	
11. I get on well with brother(s)/sister(s) (if you have any)	1	2	3	4	Does not apply to me
12. I keep my clothes clean and tidy	1	2	3	4	
13. I get good marks in reading/writing/English	1	2	3	4	
14. I have at least one or two special friends	1	2	3	4	
15. I get on well with my relatives	1	2	3	4	
16. I shower and keep myself clean	1	2	3	4	
17. I have trouble with my school work	1	2	3	4	
18. I spend most of my spare time alone	1	2	3	4	
19. I have fights with my parent(s)	1	2	3	4	
20. I help with the cooking at home	1	2	3	4	
21. I am successful at my school work	1	2	3	4	
22. I have difficulty making friends	1	2	3	4	
23. I have an adult who I can talk to if I have a problem	1	2	3	4	
24. I help with the clearing up after meals	1	2	3	4	

Please check that you have answered each question.

Thank you for completing this questionnaire.

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Loneliness and Social Dissatisfaction Questionnaire

Examples

A. I like roller skating.

| That's always true about me | That's true about me most of the time | That's sometimes true about me | That's hardly ever ever true about me | That's not true at all about me |

B. I don't like going to the movies

| That's always true about me | That's true about me most of the time | That's sometimes true about me | That's hardly ever ever true about me | That's not true at all about me |

C. I like to do homework.

| That's always true about me | That's true about me most of the time | That's sometimes true about me | That's hardly ever ever true about me | That's not true at all about me |

D. I don't like to ride bikes.

| That's always true about me | That's true about me most of the time | That's sometimes true about me | That's hardly ever ever true about me | That's not true at all about me |

---

1. It's easy for me to make new friends at school.

| That's always true about me | That's true about me most of the time | That's sometimes true about me | That's hardly ever ever true about me | That's not true at all about me |

2. I like to read.

| That's always true about me | That's true about me most of the time | That's sometimes true about me | That's hardly ever ever true about me | That's not true at all about me |

3. I have nobody to talk to.

| That's always true about me | That's true about me most of the time | That's sometimes true about me | That's hardly ever ever true about me | That's not true at all about me |

4. I'm good at working with other kids.

| That's always true about me | That's true about me most of the time | That's sometimes true about me | That's hardly ever ever true about me | That's not true at all about me |

5. I watch TV a lot.

| That's always true about me | That's true about me most of the time | That's sometimes true about me | That's hardly ever ever true about me | That's not true at all about me |

6. It's hard for me to make friends.

| That's always true about me | That's true about me most of the time | That's sometimes true about me | That's hardly ever ever true about me | That's not true at all about me |

7. I like school.

| That's always true about me | That's true about me most of the time | That's sometimes true about me | That's hardly ever ever true about me | That's not true at all about me |

8. I have lots of friends.

| That's always true about me | That's true about me most of the time | That's sometimes true about me | That's hardly ever ever true about me | That's not true at all about me |

9. I feel alone.

| That's always true about me | That's true about me most of the time | That's sometimes true about me | That's hardly ever ever true about me | That's not true at all about me |

10. I can find a friend when I need one.

| That's always true about me | That's true about me most of the time | That's sometimes true about me | That's hardly ever ever true about me | That's not true at all about me |

11. I play sports a lot.

| That's always true about me | That's true about me most of the time | That's sometimes true about me | That's hardly ever ever true about me | That's not true at all about me |

12. It's hard to get other kids to like me.

| That's always true about me | That's true about me most of the time | That's sometimes true about me | That's hardly ever ever true about me | That's not true at all about me |

13. I like science.

| That's always true about me | That's true about me most of the time | That's sometimes true about me | That's hardly ever ever true about me | That's not true at all about me |

14. I don't have anyone to play with.

| That's always true about me | That's true about me most of the time | That's sometimes true about me | That's hardly ever ever true about me | That's not true at all about me |

15. I like music.

| That's always true about me | That's true about me most of the time | That's sometimes true about me | That's hardly ever ever true about me | That's not true at all about me |

16. I get along with other kids.

| That's always true about me | That's true about me most of the time | That's sometimes true about me | That's hardly ever ever true about me | That's not true at all about me |

17. I feel left out of things.

| That's always true about me | That's true about me most of the time | That's sometimes true about me | That's hardly ever ever true about me | That's not true at all about me |

18. There's nobody I can go to when I need help.

| That's always true about me | That's true about me most of the time | That's sometimes true about me | That's hardly ever ever true about me | That's not true at all about me |

19. I like to paint and draw.

| That's always true about me | That's true about me most of the time | That's sometimes true about me | That's hardly ever ever true about me | That's not true at all about me |

20. I don't get along with other children.

| That's always true about me | That's true about me most of the time | That's sometimes true about me | That's hardly ever ever true about me | That's not true at all about me |

21. I'm lonely.

| That's always true about me | That's true about me most of the time | That's sometimes true about me | That's hardly ever ever true about me | That's not true at all about me |

22. I am well liked by the kids in my class.

| That's always true about me | That's true about me most of the time | That's sometimes true about me | That's hardly ever ever true about me | That's not true at all about me |

23. I like playing board games a lot.

| That's always true about me | That's true about me most of the time | That's sometimes true about me | That's hardly ever ever true about me | That's not true at all about me |

24. I don't have any friends.

| That's always true about me | That's true about me most of the time | That's sometimes true about me | That's hardly ever ever true about me | That's not true at all about me |

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The Measure of Adolescent Heterosocial Competence (Female Version)

Directions: For each question, select **ONE** item that best matches what you would do in each situation.

1. There is a new guy in your math class. The teacher assigns him a seat near you. You would like to introduce yourself. What would you do?
   ( ) Walk up to him and say, "Hi, my name is. . ."
   ( ) Wait for him to speak to me.
   ( ) Say hello and see what happens from there.
   ( ) Wait for an opportunity to say something funny.

2. You are at a school dance. You notice a guy across the room that you would like to talk to. You know his name, but you have never talked to him before. What would you do?
   ( ) Ask him to dance and then make conversation while dancing.
   ( ) Go up to him and introduce myself.
   ( ) I would be too shy to go up and talk to him.
   ( ) Get a friend to walk over with me and then start talking to him.

3. You are standing outside after school with a bunch of friends. You would like to call one of the guys, but you don't have his phone number. What would you do?
   ( ) Later, I would ask one of my friends for his number or call information.
   ( ) Make a remark that would hint for the number.
   ( ) Go up to him and ask him for it.
   ( ) I wouldn't do anything.

4. You talk to this guy during class sometimes and you would like to talk to him more. One evening, you look up his number in the phone book. What would you do?
   ( ) Call him, talk for a while, and then ask him out..
   ( ) Write down the number, but not call him.
   ( ) Call him and ask if it was ok to call, then start talking about regular things.
   ( ) Call him and talk about whatever comes up. Try to make sure there are no awkward pauses.

Directions: For each question, select **ONE** item that best matches what you would do in each situation.

5. You have had a crush on a guy in school for weeks. You want to find out if he likes you. What would you do?
   ( ) Call him a lot and try to get him to like me.
   ( ) I wouldn't do anything.
   ( ) Ask my friends what he says about me.
   (r) Ask him if he likes me and if we could get to know each other better.

6. One of your guy friends asks you if you want to go to a movie Friday night with a group of friends. You already have plans to go out with your boyfriend on Friday. When you tell your friend, he says, "You are always spending time with your boyfriend. What about your friends?" What would you do?
   ( ) Apologize and say, "I already made plans, but I would love to hang out with friends on Saturday night.
   ( ) Then reschedule with my boyfriend and spend time with my friends Friday night.
   ( ) Go out with my boyfriend as planned, but plan on spending next Friday night with friends.
   ( ) Say, "Why don't we all hang out together?"

7. You are having lunch with a group of friends when one of the guys starts saying something you really disagree with. What would you do?
   ( ) Argue with him until I convince him that I am right.
   ( ) Argue with him. But if things get too serious, then I would crack a joke.
   ( ) Talk to other people in the group.
   ( ) Give my opinion, but at the same time, not put down his opinion.

8. You are concerned that one of your guy friends may like you as more than a friend. You enjoy his company, but you do not want to date him. What would you do?
   ( ) Drop hints that I only like him as a friend, like saying, "You're a great friend. It's nice to have a guy friend who isn't a boyfriend."
   ( ) Nothing.
   ( ) Tell him that he is a good friend, but I am not interested in him romantically.
   ( ) Talk about other guys and how much I like them.

9. You are good friends with this guy. Recently, you can't seem to stop thinking about him. You realize that you like him as more than a friend. What would you do?
   ( )Give him hints that I like him.
   ( ) Nothing.
   ( ) Ask him out.
   ( ) Tell him how I feel and say I don't want to lose his friendship if he doesn't feel the same way.

10. One of your guy friends asks you to go to the mall one afternoon. You promised you would help out another friend this afternoon. Impatient, he says, "Come on, don't let me down. A bunch of us are going. It would be really fun." You try to say no, but he keeps pressuring you. What would you do?
    ( ) Say, "Sorry, I can't. Maybe some other time."

Directions: For each question, select **ONE** item that best matches what you would do in each situation.

( ) Tell him he is not being fair by asking me over and over and that I already have plans.
( ) Go to the mall with him.
( ) Call the other friend and schedule another time you could help her out.

11. You have a huge crush on a boy in your English class. You have liked him for about a month. You talk in class and sometimes he stops you in the hall to say hello. You would like to ask him out. What would you do?
( ) Ask if he wanted to go somewhere sometime.
( ) Have a friend ask him out for me.
( ) When we are talking in class, I would bring up a movie and see if he is interested in it. If he is, then I'd ask him to see it with me.
( ) Ask him what he is doing this weekend. If he says, "Nothing," then ask him if he wants to do something.

12. One day, a guy you know asks you out on a date. You want to turn him down, but you don't want to hurt his feelings. What would you do?
( ) Tell him that I'm not interested in dating right now, but that I value our friendship and let's work on that.
( ) Tell him I like someone else and I'm very sorry.
( ) Tell him I will go with him but only as a friend.
( ) Tell him I am sick.

13. You are out on a first date with this guy. Suddenly you realize that neither of you has said anything for a while. You are getting a little uncomfortable. What would you do?
( ) Break the silence by pointing out that neither of us has said anything.
( ) Wait for him to start a conversation.
( ) Ask him what he's thinking about.
( ) Try to start a conversation by asking something like, "How did school go today?"

14. You are going on a date with this guy. When he picks you up, he tells you that two of his guy
friends are coming too. You like his friends, but you are surprised they are coming because you
wanted to spend some time alone. What would you do?
( ) Go along with it and talk to him later to make another date.
( ) Not go. Say, "I thought we would be alone. This will be awkward."
( ) Act normal and hope it doesn't happen again.
( ) Tell him I enjoy his friends, but I was looking forward to spending time alone with him.

15. You are out on a first date with this guy. At the end of the date, he pulls his car up in front of your house and says, "I had a great time." You say, "I had fun, too." You would like to give him a goodnight kiss. What would you do?
( ) Wait for him to kiss me.
( ) Lean in and see what he does. According to his reaction, kiss him on the cheek or the mouth.
( ) Don't kiss him this time, but tell him that I would like to. Then next time, kiss him.
( ) Ask if I could kiss him. Kiss him if he says yes.

Directions: For each question, select **ONE** item that best matches what you would do in each situation.

16. You are out on a date with this guy. You are having a nice time, but it's getting late and you are kind of tired. You want to end the date, but you don't want him to think you don't like spending time with him. What would you do?
    ( ) Say, "It's getting late and I'm tired. I had fun and like spending time with you. We should get together again soon."
    ( ) Tell him I need to go home and sleep. Call him the next day to let him know I didn't ditch him.
    ( ) Wait until he wants to go home.
    ( ) Tell him I have a curfew and have to go home.

17. One day you are at the mall with your boyfriend and you run into a guy you dated a year ago. Later, your boyfriend asks you to tell him about your past relationships. What would you do?
    ( ) Be honest with him. After telling him, smile and say, "I'm really glad I'm with you now."
    ( ) Tell him all my past boyfriends were losers and they didn't mean anything.
    ( ) Tell him that I'd like to keep that information to myself. Hopefully, he'd understand.
    ( ) Tell him it's in the past and I'm over the other guy. But if he keeps asking, I'd tell him about the other relationships.

18. You have plans to go out with your boyfriend after school today. Unfortunately, you have a horrible day in school. You still want to go out with your boyfriend, but you don't know if you will be much fun. What would you do?
    ( ) Act like nothing is wrong. Go out and not let him know I had a bad day.
    ( ) Talk about my day with my boyfriend and then try to make the rest of the day fun.
    ( ) Tell him we need to postpone our plans.
    ( ) Tell him what happened and then ask if he still wants to go out with me today.

19. One day, you are taking a walk with your boyfriend. All of a sudden, he seems kind of angry. You ask him what is wrong, but he says nothing. You would really like him to share his feelings with you. What would you do?
    ( ) Say, "Something is wrong and maybe we should talk about it. It's fine if you don't want to talk, but I can't help you if I don't know what is wrong."
    ( ) Try not to pressure him into telling me, but just show concern towards him so that he might open up and tell me.
    ( ) Tell him if he can't be open with me, then I don't want a relationship with him.
    ( ) Do things to take his mind off of whatever is bothering him.

20. You have been dating this guy for three months and you really like him. In fact, you think you love him. You want to tell him how you feel about him, but just thinking about it makes you nervous. What would you do?
    ( ) Write a letter and give it to him.
    ( ) Wait another couple of months to make sure the feelings are for real.
    ( ) Wait until he says it first.
    ( ) Say, "I've never felt this way about a guy before."

21. You and this guy have gone out on four dates. You really like him and would like him to be your boyfriend. The next time you are talking on the phone, you want to talk about commitment. What would you do?

Directions: For each question, select **ONE** item that best matches what you would do in each situation.

( ) Ask him how he thinks things are going and if he thinks of us as anything more. Then tell him how I feel.

( ) Say, "So how do you feel about us?"

( ) Talk about the past four dates and try to bring up the commitment word in a casual way so as not to force it on him.

( ) Not say anything. If he wants to commit, he will say something.

22. Sometimes your boyfriend says things about other people that you don't agree with. One day, he starts talking about a teacher at school. You don't agree with what he is saying. What would you do?

( ) Be polite but tell him you think he is wrong.

( ) Tell him not to talk about the teacher.

( ) Not say anything.

( ) Talk to him alone sometime and tell him how I feel.

23. You want your boyfriend to spend more time with you. It seems like every time you call him, he's over at a friend's house. Last weekend, you wanted to spend either Friday or Saturday night together, but he already had plans to hang out with his friends. What would you do?

( ) Say, "What's the point of us being together if I never get to see you and you never have time for us. Maybe you should think about whether this relationship is something you want."

( ) Say, "I understand friends can be more important at times but I'd like to see you and spend more time with you."

( ) Ask, "Why do your friends get more attention than I do?"

( ) Tell him that we need to spend more time together, even if it is with his friends.

24. You have dated this guy for four months. You still like him, but you think you might like to date other people. You want to break up with him. What would you do?

( ) Tell him how I feel and that I want to move on.

( ) Tell him I feel like we should both see other people, but I would still like to be close friends.

( ) Tell him I still like him but I need to have a little space and see a few other people before I can know for sure how much I like him.

( ) Stay with him because there is no use in trying to date other people if you have been with the same person for four months.

25. You broke up with your boyfriend about one month ago. You don't want to date him again, but you kind of miss his friendship. What would you do?

( ) Say, "I miss hanging out with you and our long talks. I think we could be friends if you feel the same way, but if it's too hard I understand."

( ) Call him and explain that I want to be his friend, but that's it.

( ) Try talking to him and just be friendly.

( ) Nothing.

26. You and your boyfriend have been dating a long time. Lately, your relationship has become more physical. You have never talked about sex, but you think you should before things go any further. What would you do?

( ) Tell him I want to have sex and ask how he feels about it.
( ) Talk about it with him and make sure we agree.
( ) I couldn't talk about it unless he brought it up.
( ) Say, "Look, before we get more physical, can we talk about what we are doing and how we stand?

27. You and this guy have gone on a few dates together. Last time you went out, you ended up kissing for a while at the end of the date. You had a good time, but you know you are not ready to go much further physically. When you go out this weekend, you would like to tell him about what you are ready to do and what you are not ready to do sexually. What would you do?
    ( ) Tell him it's going too fast and I want to get to know him better,
    ( ) Tell him exactly how I feel so there are no misunderstandings.
    ( ) Ask how he feels first, then tell him how I feel.
    ( ) It would be hard to bring the subject up. I would just hope he didn't want to go further.

28. You and your boyfriend have decided to have sex together. You haven't talked about birth control. One day, he calls you up and tells you his parents will be out of town this weekend. You think this might be a good time to talk about contraception. What would you do?
    ( ) Tell him I'll come over. I would have condoms with me when I went over.
    ( ) Consider going on birth control pills and ask him if he would wear a condom.
    ( ) Go over this weekend and wait until he brings it up.
    ( ) Ask him what we should use for protection.

29. You and your boyfriend have decided to have sex. You have been told that before you have sex with somebody you should talk to him about sexually transmitted diseases. What would you do?
    ( ) Ask him if he has ever had sex before and ask about the past partners. Make sure he uses protection.
    ( ) Ask him who he has had sex with and if he has any diseases.
    ( ) Ask how many other people he has had sex with.
    ( ) Ignore talking about this and assume he knows.

30. Thursday, you have a huge test. Right before class, this guy catches you in the hall and says, "I forgot about the test! If I fail this test, I'm going to flunk the class. Will you push your paper to the side of the desk so I can see the answers?" What would you do?
    ( ) Say, "No, that's cheating and I don't want to get in trouble. I can help you study of you want some help.
    ( ) I'd go along with it.
    ( ) Say, "Just do your best and you'll do fine."
    ( ) Just smile and say, "You should have studied."

31. You are one of only three girls in your English class. One day the class reads a short story together. One of the boys shares what he thinks the story is about. You disagree. You want to share your version of the story with the teacher, but you think most of the boys will disagree. What would you do?
    ( ) Keep my opinion to myself.
    ( ) Tell the teacher what I thought after class.
    ( ) Say what I have to say, but don't purposefully try to offend anyone.
    ( ) Raise my hand and tell my version.

Directions: For each question, select **ONE** item that best matches what you would do in each situation.

32. You are in gym class. The teacher has given the class free time for the last 15 minutes. A guy in your class walks over to you dribbling a basketball and says, "I bet I can make more free throws than you." What would you do?
    ( ) Say, "You're on, and if I win, you have to hang out with me on Friday."
    ( ) Say, "Maybe you can, but we'll never find out unless you shoot."
    ( ) Say, "I don't really care."
    ( ) I'd play with him.

33. You are in the lunchroom eating with some friends. You want to say something to this guy who is in one of your classes. He is sitting at a table with several of his friends. What would you do?
    ( ) I wouldn't do anything.
    ( ) Wait until he wasn't with so many friends.
    ( ) Go sit at their table and join in with the conversation.
    ( ) Pass him a note.

34. You are hanging out with a group of friends (both girls and boys). Some of the group decides to go to a movie and the rest of the group decides to do something else. You don't want to go to a movie, but the other group is all guys. What would you do?
    ( ) Try to convince a girl to come with me and then go with the guys.
    ( ) Go to the movies.
    ( ) Say, "I'll stay home tonight."
    ( ) Say, "Can we do both? Or one now and the other later?" Talk it out.

35. You hear that there is a new club forming at school. You go to the first meeting after school on Wednesday. As the meeting begins, you look around and realize that you are the only girl at the meeting. What would you do?
    ( ) If it was a good club, I'd stay in it.
    ( ) Leave.
    ( ) Stay in the club and tell no one outside the club that I am the only girl.
    ( ) Get some of my friends to join.

36. You are at a party with a bunch of friends. A guy friend comes over to you and offers you a beer. When you say no, he says, "Oh come on, I brought this over just for you. You have to drink it!" What would you do?
    ( ) Drink it.
    ( ) Tell him why I am not drinking.
    ( ) Say, "No thanks," and walk away.
    ( ) Say, "Maybe later," and don't do it later.

37. You and your boyfriend are over at his house. Your boyfriend starts talking about some weed he bought from another guy. You know you would get into big trouble if your parents found out that you had smoked pot. What would you do?
    ( ) Say, "No, I'm not into that stuff."
    ( ) Say, "Okay," and hope my parents didn't find out.
    ( ) Say, "No thanks, I'm all set."
    ( ) Get up and leave. I don't want to risk getting in trouble.

Directions: For each question, select **ONE** item that best matches what you would do in each situation.

38. You are at a party with a bunch of friends. You notice that the guy you have a crush on is at the party. Later, he comes over to you and you talk to him for a while. He puts his arm around you and you think he might kiss you. You really like this guy, but you think he might be high. What would you do?
   ( ) Say, "Maybe later."
   ( ) If he kisses me, say, "Is this because you are high or because you like me?"
   ( ) Say, "Talk to me when you aren't high."
   ( ) Act like I don't know what he is doing and start talking to someone else.

39. Last week, this guy at school started winking at you whenever you looked at him. This week, he started making kissing noises when you walk by. You are not interested in him and you told him to stop it. Today when you arrive at class, he says, "Hey sexy." What would you do?
   ( ) Feel flattered and smile.
   ( ) Ask him to please stop and if he doesn't, go talk to an adult.
   ( ) Tell him that I am not interested and ignore him.
   ( ) Play along and laugh so it would look like I thought he was joking.

40. A few weeks ago, a guy you work with started commenting on what you wear to work. One day, he complemented you on your shirt. Another day, he said blue was a nice color on you. Yesterday, he said your pants fit, "nice and tight." Afterward you felt really creepy. What would you do?
   ( ) Nothing.
   ( ) Not wear anything tight again.
   ( ) Tell him to stop looking at me and tell a friend at work.
   ( ) Tell him I feel uncomfortable. If he doesn't stop, tell my supervisor.

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The Measure of Adolescent Heterosocial Competence (Male Version)

Directions: For each question, select **ONE** item that best matches what you would do in each situation.

1. There is a new girl in your math class. The teacher assigns her a seat near you. You would like to introduce yourself. What would you do?
   ( ) Walk up to her and say, "Hi, my name is. . ."
   ( ) Wait for her to speak to me.
   ( ) Say hello and see what happens from there.
   ( ) Wait for an opportunity to say something funny.

2. You are at a school dance. You notice a girl across the room that you would like to talk to. You know her name, but you have never talked to her before. What would you do?
   ( ) Ask her to dance and then make conversation while dancing.

Directions: For each question, select **ONE** item that best matches what you would do in each situation.

( ) Go up to her and introduce myself.
( ) I would be too shy to go up and talk to her.
( ) Get a friend to walk over with me and then start talking to her.

3. You are standing outside after school with a bunch of friends. You would like to call one of the girls, but you don't have her phone number. What would you do?
( ) Later, I would ask one of my friends for her number or call information.
( ) Make a remark that would hint for the number.
( ) Go up to her and ask her for it.
( ) I wouldn't do anything.

4. You talk to this girl during class sometimes and you would like to talk to her more. One evening, you look up her number in the phone book. What would you do?
( ) Call her, talk for a while, and then ask her out..
( ) Write down the number but not call her.
( ) Call her and ask if it was ok to call, then start talking about regular things.
( ) Call her and talk about whatever comes up. Try to make sure there are no awkward pauses.

5. You have had a crush on a girl in school for weeks. You want to find out if she likes you. What would you do?
( ) Call her a lot and try to get her to like me.
( ) I wouldn't do anything.
( ) Ask my friends what she says about me.
( ) Ask her if she likes me and if we could get to know each other better.

6. One of your female friends asks you if you want to go to a movie Friday night with a group of friends. You already have plans to go out with your girlfriend on Friday. When you tell your friend, she says, "You are always spending time with your girlfriend. What about your friends?" What would you do?
( ) Apologize and say, "I already made plans, but I would love to hang out with friends on Saturday night."
( ) Say, "You're right." Then reschedule with my girlfriend and spend time with my friends Friday night.
( ) Go out with my girlfriend as planned, but plan on spending next Friday night with friends.
( ) Say, "Why don't we all hang out together?"

7. You are having lunch with a group of friends when one of the girls starts saying something you really disagree with. What would you do?
( ) Argue with her until I convince her that I am right.
( ) Argue with her. But if things get too serious, then I would crack a joke.
( ) Talk to other people in the group.
( ) Give my opinion, but at the same time, not put down her opinion.

8. You are concerned that one of your female friends may like you as more than a friend. You enjoy her company, but you do not want to date her. What would you do?
( ) Drop hints that I only like her as a friend, like saying, "You're a great friend. It's nice to have a female friend who isn't a girlfriend."

Directions: For each question, select **ONE** item that best matches what you would do in each situation.
- ( ) Nothing.
- ( ) Tell her that she is a good friend, but I am not interested in her romantically.
- ( ) Talk about other girls and how much I like them.

9. You are good friends with this girl. Recently, you can't seem to stop thinking about her. You realize that you like her as more than a friend. What would you do?
   - ( ) Give her hints that I like her.
   - ( ) Nothing.
   - ( ) Ask her out.
   - ( ) Tell her how I feel and say I don't want to lose her friendship if she doesn't feel the same way.

10. One of your female friends asks you to go to the mall one afternoon. You promised you would help out another friend this afternoon. Impatient, she says, "Come on, don't let me down. A bunch of us are going. It would be really fun." You try to say no, but she keeps pressuring you. What would you do?
    - ( ) Say, "Sorry, I can't. Maybe some other time."
    - ( ) Tell her she is not being fair by asking me over and over and that I already have plans.
    - ( ) Go to the mall with her.
    - ( ) Call the other friend and schedule another time you could help her out.

11. You have a huge crush on a girl in your English class. You have liked her for about a month. You talk in class and sometimes she stops you in the hall to say hello. You would like to ask her out. What would you do?
    - ( ) Ask if she wanted to go somewhere sometime.
    - ( ) Have a friend ask her out for me.
    - ( ) When we are talking in class, I would bring up a movie and see if she is interested in it. If she is, then I'd ask her to see it with me.
    - ( ) Ask her what she is doing this weekend. If she says, "Nothing," then ask her if she wants to do something.

12. One day, a girl you know asks you out on a date. You want to turn her down, but you don't want to hurt her feelings. What would you do?
    - ( ) Tell her that I'm not interested in dating right now, but that I value our friendship and let's work on that.
    - ( ) Tell her I like someone else and I'm very sorry.
    - ( ) Tell her I will go with her but only as a friend.
    - ( ) Tell her I am sick.

13. You are out in a first date with this girl. Suddenly you realize that neither of you has said anything for a while. You are getting a little uncomfortable. What would you do?
    - ( ) Break the silence by pointing out that neither of us has said anything.
    - ( ) Wait for her to start a conversation.
    - ( ) Ask her what she's thinking about.
    - ( ) Try to start a conversation by asking something like, "How did school go today?"

14. You are going on a date with this girl. When she picks you up, she tells you that two of her girl friends are coming too. You like her friends, but you are surprised they are coming because you wanted to spend some time alone. What would you do?

( ) Go along with it and talk to her later to make another date.

( ) Not go. Say, "I thought we would be alone. This will be awkward."

( ) Act normal and hope it doesn't happen again.

( ) Tell her I enjoy her friends, but I was looking forward to spending time alone with her.

15. You are out on a first date with this girl. At the end of the date, she pulls her car up in front of your house and says, "I had a great time." You say, "I had fun, too." You would like to give her a goodnight kiss. What would you do?

( ) Wait for her to kiss me.

( ) Lean in and see what she does. According to her reaction, kiss her on the cheek or the mouth.

( ) Don't kiss her this time, but tell her that I would like to. Then next time, kiss her.

( ) Ask if I could kiss her. Kiss her if she says yes.

16. You are out on a date with this girl. You are having a nice time, but it's getting late and you are kind of tired. You want to end the date, but you don't want her to think you don't like spending time with her. What would you do?

( ) Say, "It's getting late and I'm tired. I had fun and like spending time with you. We should get together again soon.

( ) Tell her I need to go home and sleep. Call her the next day to let her know I didn't ditch her.

( ) Wait until she wants to go home.

( ) Tell her I have a curfew and have to go home.

17. One day you are at the mall with your girlfriend and you run into a girl you dated a year ago. Later, your girlfriend asks you to tell her about your past relationships. What would you do?

( ) Be honest with her. After telling her, smile and say, "I'm really glad I'm with you now."

( ) Tell her all my past girlfriends were losers and they didn't mean anything.

( ) Tell her that I'd like to keep that information to myself. Hopefully, she'd understand.

( ) Tell her it's in the past and I'm over the other girl. But if she keeps asking, I'd tell her about the other relationships.

18. You have plans to go out with your girlfriend after school today. Unfortunately, you have a horrible day in school. You still want to go out with your girlfriend, but you don't know if you will be much fun. What would you do?

( ) Act like nothing is wrong. Go out and not let her know I had a bad day.

( ) Talk about my day with my girlfriend and then try to make the rest of the day fun.

( ) Tell her we need to postpone our plans.

( ) Tell her what happened and then ask if she still wants to go out with me today.

19. One day, you are taking a walk with your girlfriend. All of a sudden, she seems kind of angry. You ask her what is wrong, but she says nothing. You would really like her to share her feelings with you. What would you do?

( ) Say, "Something is wrong and maybe we should talk about it. It's fine if you don't want to talk, but I can't help you if I don't know what is wrong."

( ) Try not to pressure her into telling me, but just show concern towards her so that she might open up and tell me.

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    ( ) Wait until she says it first.
    ( ) Say, "I've never felt this way about a girl before."

21. You and this girl have gone out on four dates. You really like her and would like her to be your girlfriend. The next time you are talking on the phone, you want to talk about commitment. What would you do?
    ( ) Ask her how she thinks things are going and if she thinks of us as anything more. Then tell her how I feel.
    ( ) Say, "So how do you feel about us?"
    ( ) Talk about the past four dates and try to bring up the commitment word in a casual way so as not to force it on her.
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    ( ) Try talking to her and just be friendly.
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    ( ) Try to convince a girl to come with me and then go with the girls.

    ( ) Go to the movies.

    ( ) Say, "I'll stay home tonight."

    ( ) Say, "Can we do both? Or one now and the other later?" Talk it out.

35. You hear that there is a new club forming at school. You go to the first meeting after school on Wednesday. As the meeting begins, you look around and realize that you are the only girl at the meeting. What would you do?

    ( ) If it was a good club, I'd stay in it.

    ( ) Leave.

    ( ) Stay in the club and tell no one outside the club that I am the only girl.

    ( ) Get some of my friends to join.

Directions: For each question, select **ONE** item that best matches what you would do in each situation.

36. You are at a party with a bunch of friends. A girl friend comes over to you and offers you a beer. When you say no, she says, "Oh come on, I brought this over just for you. You have to drink it!" What would you do?
    ( ) Drink it.
    ( ) Tell her why I am not drinking.
    ( ) Say, "No thanks," and walk away.
    ( ) Say, "Maybe later," and don't do it later.

37. You and your girlfriend are over at her house. Your girlfriend starts talking about some weed she bought from another guy. You know you would get into big trouble if your parents found out that you had smoked pot. What would you do?
    ( ) Say, "No, I'm not into that stuff."
    ( ) Say, "Okay," and hope my parents didn't find out.
    ( ) Say, "No thanks, I'm all set."
    ( ) Get up and leave. I don't want to risk getting in trouble.

38. You are at a party with a bunch of friends. You notice that the girl you have a crush on is at the party. Later, she comes over to you and you talk to her for a while. She puts her arm around you and you think she might kiss you. You really like this girl, but you think she might be high. What would you do?
    ( ) Say, "Maybe later."
    ( ) If she kisses me, say, "Is this because you are high or because you like me?"
    ( ) Say, "Talk to me when you aren't high."
    ( ) Act like I don't know what she is doing and start talking to someone else.

39. Last week, this girl at school started winking at you whenever you looked at her. This week, she started making kissing noises when you walk by. You are not interested in her and you told her to stop it. Today when you arrive to class, she says, "Hey sexy." What would you do?
    ( ) Feel flattered and smile.
    ( ) Ask her to please stop and if she doesn't, go talk to an adult.
    ( ) Tell her that I am not interested and ignore her.
    ( ) Play along and laugh so it would look like I thought she was joking.

40. A few weeks ago, a girl you work with started commenting on what you wear to work. One day, she complemented you on your shirt. Another day, she said blue was a nice color on you. Yesterday, she said your pants fit, "nice and tight." Afterward you felt really creepy. What would you do?
    ( ) Nothing.
    ( ) Not wear anything tight again.
    ( ) Tell her to stop looking at me and tell a friend at work.
    ( ) Tell her I feel uncomfortable. If she doesn't stop, tell my supervisor.

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The Measure of Adolescent Heterosocial Competence – Key for Both Males and Females

1. There is a new guy in your math class. The teacher assigns him a seat near you. You would like to introduce yourself. What would you do?

   (4) Walk up to him and say, "Hi, my name is. . ."
   (1) Wait for him to speak to me.
   (3) Say hello and see what happens from there.
   (2) Wait for an opportunity to say something funny.

2. You are at a school dance. You notice a guy across the room that you would like to talk to. You know his name, but you have never talked to him before. What would you do?

   (3) Ask him to dance and then make conversation while dancing.
   (4) Go up to him and introduce myself.
   (1) I would be too shy to go up and talk to him.
   (2) Get a friend to walk over with me and then start talking to him.

3. You are standing outside after school with a bunch of friends. You would like to call one of the guys, but you don't have his phone number. What would you do?

   (3) Later, I would ask one of my friends for his number or call information.
   (2) Make a remark that would hint for the number.
   (4) Go up to him and ask him for it.
   (1) I wouldn't do anything.

4. You talk to this guy during class sometimes and you would like to talk to him more. One evening, you look up his number in the phone book. What would you do?

   (2) Call him, talk for a while, and then ask him out..
   (1) Write down the number, but not call him.
   (4) Call him and ask if it was ok to call, then start talking about regular things.
   (3) Call him and talk about whatever comes up. Try to make sure there are no awkward pauses.

5. You have had a crush on a guy in school for weeks. You want to find out if she likes you. What do you do?

   (3) Call him a lot and try to get him to like me.
   (1) I wouldn't do anything.
   (2) Ask my friends what she says about me.
   (4) Talk to him a lot and see if she acts interested.
      Or . . .Ask him if he likes me and if we could get to know each other better.

6. One of your guy friends asks you if you want to go to a movie Friday night with a group of friends. You already have plans to go out with your boyfriend on Friday. When you tell your friend, she says, "You are always spending time with your boyfriend. What about your friends?" What would you do?

   (4) Apologize and say, "I already made plans, but I would love to hang out with friends on Saturday night.

(1) Say, "You're right." Then reschedule with my boyfriend and spend time with my friends Friday night.

(2) Go out with my boyfriend as planned, but plan on spending next Friday night with friends.

(3) Say, "Why don't we all hang out together?"

7. You are having lunch with a group of friends when one of the guys starts saying something you really disagree with. What would you do?

   (1) Argue with him until I convince him that I am right.

   (3) Argue with him. But if things get too serious, then I would crack a joke.

   (2) Talk to other people in the group.

   (4) Give my opinion, but at the same time, not put down his opinion.

8. You are concerned that one of your guy friends may like you as more than a friend. You enjoy his company, but you do not want to date her. What would you do?

   (3) Drop hints that I only like him as a friend, like saying, "You're a great friend. It's nice to have a guy friend who isn't a boyfriend."

   (1) Nothing.

   (4) Tell him that he is a good friend, but I am not interested in him romantically.

   (2) Talk about other guys and how much I like them.

9. You are good friends with this guy. Recently, you can't seem to stop thinking about him. You realize that you like him as more than a friend. What would you do?

   (1) Give him hints that I like him.

   (2) Nothing.

   (3) Ask him out.

   (4) Tell him how I feel and say I don't want to lose his friendship if he doesn't feel the same way.

10. One of your guy friends asks you to go to the mall one afternoon. You promised you would help out another friend this afternoon. Impatient, he says, "Come on, don't let me down. A bunch of us are going. It would be really fun." You try to say no, but he keeps pressuring you. What would you do?

   (4) Say, "Sorry, I can't. Maybe some other time."

   (3) Tell him he is not being fair by asking me over and over and that I already have plans.

   (1) Go to the mall with him.

   (2) Call the other friend and schedule another time you could help her out.

11. You have a huge crush on a boy in your English class. You have liked him for about a month. You talk in class and sometimes she stops you in the hall to say hello. You would like to ask him out. What would you do?

   (2) Ask if he wanted to go somewhere sometime.

   (1) Have a friend ask him out for me.

   (4) When we are talking in class, I would bring up a movie and see if he is interested in it. If he is, then I'd ask him to see it with me.

   (3) Ask him what he is doing this weekend. If he says, "Nothing," then ask him if he wants to do something.

12. One day, a guy you know asks you out on a date. You want to turn him down, but you don't want to hurt his feelings. What would you do?

(4) Tell him that I'm not interested in dating right now, but that I value our friendship and let's work on that.
(3) Tell him I like someone else and I'm very sorry.
(2) Tell him I will go with him but only as a friend.
(1) Tell him I am sick.

13. You are out in a first date with this guy. Suddenly you realize that neither of you has said anything for a while. You are getting a little uncomfortable. What would you do?

(2) Break the silence by pointing out that neither of us has said anything.
(1) Wait for him to start a conversation.
(3) Ask him what he's thinking about.
(4) Try to start a conversation by asking something like, "How did school go today?"

14. You are going on a date with this guy. When he picks you up, he tells you that two of his guy friends are coming too. You like his friends, but you are surprised they are coming because you wanted to spend some time alone. What would you do?

(3) Go along with it and talk to him later to make another date.
(2) Not go. Say, "I thought we would be alone. This will be awkward."
(1) Act normal and hope it doesn't happen again.
(4) Tell him I enjoy his friends, but I was looking forward to spending time alone with him.

15. You are out on a first date with this guy.r At the end of the date, he pulls his car up in front of your house and says, "I had a great time." You say, "I had fun, too." You would like to give him a goodnight kiss. What would you do?

(1) Wait for him to kiss me.
(2) Lean in and see what he does. According to his reaction, kiss him on the cheek or the mouth.
(3) Don't kiss him this time, but tell him that I would like to. Then next time, kiss him.
(4) Ask if I could kiss him. Kiss him if he says yes.

16. You are out on a date with this guy. You are having a nice time, but it's getting late and you are kind of tired. You want to end the date, but you don't want him to think you don't like spending time with him. What would you do?

(4) Say, "It's getting late and I'm tired. I had fun and like spending time with you. We should get together again soon.
(3) Tell him I need to go home and sleep. Call him the next day to let him know I didn't ditch him.
(1) Wait until she wants to go home.
(2) Tell him I have a curfew and have to go home.

17. One day you are at the mall with your boyfriend and you run into a guy you dated a year ago. Later, your boyfriend asks you to tell him about your past relationships. What would you do?

(4) Be honest with him. After telling him, smile and say, "I'm really glad I'm with you now."
(1) Tell him all my past boyfriends were losers and they didn't mean anything.
(2) Tell him that I'd like to keep that information to myself. Hopefully, he'd understand.

(3) Tell him it's in the past and I'm over the other guy. But if she keeps asking, I'd tell him about the other relationships.

18. You have plans to go out with your boyfriend after school today. Unfortunately, you have a horrible day in school. You still want to go out with your boyfriend, but you don't know if you will be much fun. What would you do?

(1) Act like nothing is wrong. Go out and not let him know I had a bad day.
(3) Talk about my day with my boyfriend and then try to make the rest of the day fun.
(2) Tell him we need to postpone our plans.
(4) Tell him what happened and then ask if she still wants to go out with me today.

19. One day, you are taking a walk with your boyfriend. All of a sudden, she seems kind of angry. You ask him what is wrong, but she says nothing. You would really like him to share his feelings with you. What would you do?

(4) Say, "Something is wrong and maybe we should talk about it. It's fine if you don't want to talk, but I can't help you if I don't know what is wrong.
(3) Try not to pressure him into telling me, but just show concern towards him so that he might open up and tell me.
(1) Tell him if he can't be open with me, then I don't want a relationship with him.
(2) Do things to take his mind off of whatever is bothering him.

20. You have been dating this guy for three months and you really like him. In fact, you think you love him. You want to tell him how you feel about him, but just thinking about it makes you nervous. What would you do?

(2) Write a letter and give it to him.
(4) Wait another couple of months to make sure the feeling are for real.
(1) Wait until he says it first.
(3) Say, "I've never felt this way about a guy before."

21. You and this guy have gone out on four dates. You really like him and would like him to be your boyfriend. The next time you are talking on the phone, you want to talk about commitment. What would you do?

(4) Ask him how he thinks things are going and if he thinks of us as anything more. Then tell him how I feel.
(3) Say, "So how do you feel about us?"
(2) Talk about the past four dates and try to bring up the commitment word in a casual way so as not to force it on him.
(1) Not say anything. If he wants to commit, he will say something.

22. Sometimes your boyfriend says things about other people that you don't agree with. One day, he starts talking about a teacher at school. You don't agree with what he is saying. What would you do?

(3) Be polite but tell him you think he is wrong.
(2) Tell him not to talk about the teacher.
(1) Not say anything.
(4) Talk to him alone sometime and tell him how I feel.

23. You want your boyfriend to spend more time with you. It seems like every time you call him, he's over at a friend's house. Last weekend, you wanted to spend either Friday

or Saturday night together, but he already had plans to hang out with his friends. What would you do?

(2) Say, "What's the point of us being together if I never get to see you and you never have time for us. Maybe you should think about whether this relationship is something you want."

(4) Say, "I understand friends can be more important at times but I'd like to see you and spend more time with you."

(1) Ask, "Why do your friends get more attention than I do?"

(3) Tell him that we need to spend more time together, even if it is with his friends.

24. You have dated this guy for four months. You still like him, but you think you might like to date other people. You want to break up with him. What would you do?

(4) Tell him how I feel and that I want to move on.

(2) Tell him I feel like we should both see other people, but I would still like to be close friends.

(3) Tell him I still like him but I need to have a little space and see a few other people before I can know for sure how much I like her.

(1) Stay with him because there is no use in trying to date other people if you have been with the same person for four months.

25. You broke up with your boyfriend about one month ago. You don't want to date him again, but you kind of miss his friendship. What would you do?

(4) Say, "I miss hanging out with you and our long talks." I think we could be friends if you feel the same way, but if it's too hard I understand.

(3) Call him and explain that I want to be his friend, but that's it.

(2) Try talking to him and just be friendly.

(1) Nothing.

26. You and your boyfriend have been dating a long time. Lately, your relationship has become more physical. You have never talked about sex, but you think you should before things go any further. What would you do?

(2) Tell him I want to have sex and ask how he feels about it.

(4) Talk about it with him and make sure we agree.

(1) I couldn't talk about it unless he brought it up.

(3) Say, "Look, before we get more physical, can we talk about what we are doing and how we stand?

27. You and this guy have gone on a few dates together. Last time you went out, you ended up kissing for a while at the end of the date. You had a good time, but you know you are not ready to go much further physically. When you go out this weekend, you would like to tell him about what you are ready to do and what you are not ready to do sexually. What would you do?

(3) Tell him it's going too fast and I want to get to know him better,

(4) Tell him exactly how I feel so there are no misunderstandings.

(2) Ask how she feels first, then tell him how I feel.

(1) It would be hard to bring the subject up. I would just hope she didn't want to go further.

28. You and your girlfriend have decided to have sex together. You haven't talked about birth control. One day, she calls you up and tells you her parents will be out of town this weekend. You think this might be a good time to talk about contraception. What would you do?

    (2) Tell her I'll come over. I would have condoms with me when I went over.
    (4) Ask her if she is on birth control pills and ask if I could wear a condom.
    (1) Go over this weekend and wait until she brings it up.
    (3) Ask her what we should use for protection.

29. You and your boyfriend have decided to have sex. You have been told that before you have sex with somebody you should talk to him about sexually transmitted diseases. What would you do?

    (4) Ask him if he has ever had sex before and ask about the past partners. Make sure he uses protection.
    (3) Ask him who he has had sex with and if he has any diseases.
    (2) Ask how many other people he has had sex with.
    (1) Ignore talking about this and assume he knows.

30. Thursday, you have a huge test. Right before class, this guy catches you in the hall and says, "I forgot about the test! If I fail this test, I'm going to flunk the class. Will you push your paper to the side of the desk so I can see the answers?" What would you do?

    (4) Say, "No, that's cheating and I don't want to get in trouble. I can help you study of you want some help.
    (1) I'd go along with it.
    (2) Say, "Just do your best and you'll do fine."
    (3) Just smile and say, "You should have studied."

31. You are one of only three girls in your English class. One day the class reads a short story together. One of the boys shares what she thinks the story is about. You disagree. You want to share your version of the story with the teacher, but you think most of the boys will disagree. What would you do?

    (1) Keep my opinion to myself.
    (2) Tell the teacher what I thought after class.
    (3) Say what I have to say, but don't purposefully try to offend anyone.
    (4) Raise my hand and tell my version.

32. You are in gym class. The teacher has given the class free time for the last 15 minutes. A guy in your class walks over to you dribbling a basketball and says, "I bet I can make more free throws than you." What would you do?

    (2) Say, "You're on, and if I win, you have to hang out with me on Friday."
    (3) Say, "Maybe you can, but we'll never find out unless you shoot."
    (1) Say, "I don't really care."
    (4) I'd play with him.

33. You are in the lunchroom eating with some friends. You want to say something to this guy who is in one of your classes. He is sitting at a table with several of his friends. What would you do?

    (1) I wouldn't do anything.

(4) Wait until he wasn't with so many friends.
(3) Go sit at their table and join in with the conversation.
(2) Pass him a note.

34. You are hanging out with a group of friends (both girls and boys). Some of the group decides to go to a movie and the rest of the group decides to do something else. You don't want to go to a movie, but the other group is all guys. What would you do?

    (3) Try to convince a girl to come with me and then go with the guys.
    (2) Go to the movies.
    (1) Say, "I'll stay home tonight."
    (4) Say, "Can we do both? Or one now and the other later?" Talk it out.

35. You hear that there is a new club forming at school. You go to the first meeting after school on Wednesday. As the meeting begins, you look around and realize that you are the only guy at the meeting. What would you do?

    (4) If it was a good club, I'd stay in it.
    (1) Leave.
    (2) Stay in the club and tell no one outside the club that I am the only girl.
    (3) Get some of my friends to join.

36. You are at a party with a bunch of friends. A guy friend comes over to you and offers you a beer. When you say no, he says, "Oh come on, I brought this over just for you. You have to drink it!" What would you do?

    (1) Drink it.
    (4) Tell him why I am not drinking.
    (3) Say, "No thanks," and walk away.
    (2) Say, "Maybe later," and don't do it later.

37. You and your boyfriend are over at his house. Your boyfriend starts talking about some weed he bought from another guy. You know you would get into big trouble if your parents found out that you had smoked pot. What would you do?

    (4) Say, "No, I'm not into that stuff."
    (1) Say, "Okay," and hope my parents didn't find out.
    (3) Say, "No thanks, I'm all set."
    (2) Get up and leave. I don't want to risk getting in trouble.

38. You are at a party with a bunch of friends. You notice that the guy you have a crush on is at the party. Later, he comes over to you and you talk to him for a while. He puts his arm around you and you think she might kiss you. You really like this guy, but you think he might be high. What would you do?

    (3) Say, "Maybe later."
    (2) If she kisses me, say, "Is this because you are high or because you like me?"
    (4) Say, "Talk to me when you aren't high."
    (1) Act like I don't know what he is doing and start talking to someone else.

39. Last week, this guy at school started winking at you whenever you looked at him. This week, he started making kissing noises when you walk by. You are not interested in him and you told him to stop it. Today when you arrive to class, she says, "Hey sexy." What would you do?

(1) Feel flattered and smile.
(4) Ask him to please stop and if he doesn't, go talk to an adult.
(3) Tell him that I am not interested and ignore her.
(2) Play along and laugh so it would look like I thought he was joking.

40. A few weeks ago, a guy you work with started commenting on what you wear to work. One day, he complemented you on your shirt. Another day, he said blue was a nice color on you. Yesterday, he said your pants fit, "nice and tight." Afterward you felt really creepy. What would you do?

    (1) Nothing.
    (4) Not wear anything tight again.
    (2) Tell him to stop looking at me and tell a friend at work.
    (3) Tell him I feel uncomfortable. If he doesn't stop, tell my supervisor.

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Social Problem—Solving Inventory for Adolescents (SPSI-A): Sample Items

Directions:

Below are statements that reflect how you respond to problems and how you think and feel about yourself afterward. You should think of **serious problems** that are related to your family, health, friends, school, and sports. You should also try to think about a serious problem that you had to solve recently as you reply to these statements.

Read each statement carefully. Think about how you usually think, feel, and behave when you face these types of problems. Circle the number that best describes how true the statement is of you.

	Not at All True of Me	Slightly True of Me	Moderately True of Me	Very True of Me	Extremely True of Me
1. When I have a problem, I think of the ways that I have handled the same kind of problem before.	0	1	2	3	4
8. Complex problems make me very angry or upset.	0	1	2	3	4
11. I avoid dealing with problems in my life.	0	1	2	3	4
13. When I have a problem, I find out if it is part of a bigger problem that I should deal with.	0	1	2	3	4
17. I try to think of as many ways to approach a problem as I can.	0	1	2	3	4
20. I weigh the outcomes for each of the options I think of.	0	1	2	3	4
22. Before I try to solve a problem, I set a goal so I know what I want to achieve.	0	1	2	3	4
26. After I solve a problem, I decide if I feel better about the situation.	0	1	2	3	4
30. I go through the problem-solving process again when my first option fails.	0	1	2	3	4

Teenage Inventory of Social Skills (Version for Boys)

<u>Directions</u>: Below are some things that teenagers do. Please circle the words indicating how much the statement describes you.

1. I tell jokes and get other classmates to laugh

Does not describe me at all	Describes me very little	Describes me a little	Describes me somewhat	Describes me mostly	Describes me totally

2. I try to get other classmates to do things my way when working on a group project

Does not describe me at all	Describes me very little	Describes me a little	Describes me somewhat	Describes me mostly	Describes me totally

3. I stick up for other guys when somebody says something nasty behind their backs

Does not describe me at all	Describes me very little	Describes me a little	Describes me somewhat	Describes me mostly	Describes me totally

4. I forget to return things that other guys loan me

Does not describe me at all	Describes me very little	Describes me a little	Describes me somewhat	Describes me mostly	Describes me totally

5. I make jokes about other guys when they are clumsy at sports

Does not describe me at all	Describes me very little	Describes me a little	Describes me somewhat	Describes me mostly	Describes me totally

6. I ask other guys to go places with me

Does not describe me at all	Describes me very little	Describes me a little	Describes me somewhat	Describes me mostly	Describes me totally

7. I help other guys with their homework when they ask me for help

Does not describe me at all	Describes me very little	Describes me a little	Describes me somewhat	Describes me mostly	Describes me totally

8. I ignore classmates when they tell me to stop doing something

Does not describe me at all	Describes me very little	Describes me a little	Describes me somewhat	Describes me mostly	Describes me totally

9. I offer to help classmates do their homework

Does not describe me at all	Describes me very little	Describes me a little	Describes me somewhat	Describes me mostly	Describes me totally

10. When I don't like the way other guys look, I tell them

Does not describe me at all	Describes me very little	Describes me a little	Describes me somewhat	Describes me mostly	Describes me totally

11. I listen when other guys want to talk about a problem

Does not describe me at all	Describes me very little	Describes me a little	Describes me somewhat	Describes me mostly	Describes me totally

12. I laugh at other guys when they make mistakes

Does not describe me at all	Describes me very little	Describes me a little	Describes me somewhat	Describes me mostly	Describes me totally

13. I push guys I do not like

Does not describe me at all	Describes me very little	Describes me a little	Describes me somewhat	Describes me mostly	Describes me totally

14. When I want to do something, I try to talk other guys into doing it, even if they don't want to

Does not describe me at all	Describes me very little	Describes me a little	Describes me somewhat	Describes me mostly	Describes me totally

15. I make sure that everyone gets a turn when I am involved in a group activity

Does not describe me at all	Describes me very little	Describes me a little	Describes me somewhat	Describes me mostly	Describes me totally

16. I talk only about what I'm interested in when I talk to other guys

Does not describe me at all	Describes me very little	Describes me a little	Describes me somewhat	Describes me mostly	Describes me totally

17. I ask other guys for advice

Does not describe me at all	Describes me very little	Describes me a little	Describes me somewhat	Describes me mostly	Describes me totally

18. I tell other guys that they are nice

Does not describe me at all	Describes me very little	Describes me a little	Describes me somewhat	Describes me mostly	Describes me totally

19. I ignore other guys when I am not interested in what they are talking about

Does not describe me at all	Describes me very little	Describes me a little	Describes me somewhat	Describes me mostly	Describes me totally

20. I lie to get out of trouble

Does not describe me at all	Describes me very little	Describes me a little	Describes me somewhat	Describes me mostly	Describes me totally

21. I always tell other classmates what to do when something needs to be done

Does not describe me at all	Describes me very little	Describes me a little	Describes me somewhat	Describes me mostly	Describes me totally

22. When I am with my best friend, I ignore other guys

Does not describe me at all	Describes me very little	Describes me a little	Describes me somewhat	Describes me mostly	Describes me totally

23. I flirt with another guy's girlfriend when I like her

Does not describe me at all	Describes me very little	Describes me a little	Describes me somewhat	Describes me mostly	Describes me totally

24. I make up things to impress other guys

Does not describe me at all	Describes me very little	Describes me a little	Describes me somewhat	Describes me mostly	Describes me totally

25. I tell other classmates they played a game well when I lose

| Does not describe me at all | Describes me very little | Describes me a little | Describes me somewhat | Describes me mostly | Describes me totally |

26. I offer to share something with other guys when I know that they would like it

| Does not describe me at all | Describes me very little | Describes me a little | Describes me somewhat | Describes me mostly | Describes me totally |

27. I lend other guys money when they ask for it

| Does not describe me at all | Describes me very little | Describes me a little | Describes me somewhat | Describes me mostly | Describes me totally |

28. I hit other guys when they make me mad

| Does not describe me at all | Describes me very little | Describes me a little | Describes me somewhat | Describes me mostly | Describes me totally |

29. I tell classmates I'm sorry when I know I have hurt their feelings

| Does not describe me at all | Describes me very little | Describes me a little | Describes me somewhat | Describes me mostly | Describes me totally |

30. I tell the truth when I have done something wrong and other guys are being blamed for it

| Does not describe me at all | Describes me very little | Describes me a little | Describes me somewhat | Describes me mostly | Describes me totally |

31. I talk more than others when I am with a group of guys

| Does not describe me at all | Describes me very little | Describes me a little | Describes me somewhat | Describes me mostly | Describes me totally |

32. I ignore other guys when they give me compliments

| Does not describe me at all | Describes me very little | Describes me a little | Describes me somewhat | Describes me mostly | Describes me totally |

33. I throw things when I get angry

| Does not describe me at all | Describes me very little | Describes me a little | Describes me somewhat | Describes me mostly | Describes me totally |

34. I offer to loan other guys my clothes for special occasions

| Does not describe me at all | Describes me very little | Describes me a little | Describes me somewhat | Describes me mostly | Describes me totally |

35. I thank other guys when they have done something nice for me

| Does not describe me at all | Describes me very little | Describes me a little | Describes me somewhat | Describes me mostly | Describes me totally |

36. I do my share when working with a group of classmates

| Does not describe me at all | Describes me very little | Describes me a little | Describes me somewhat | Describes me mostly | Describes me totally |

37. I call classmates bad names to their faces when I am angry

| Does not describe me at all | Describes me very little | Describes me a little | Describes me somewhat | Describes me mostly | Describes me totally |

38. I keep secrets private

Does not describe me at all	Describes me very little	Describes me a little	Describes me somewhat	Describes me mostly	Describes me totally

39. I tell other guys how I really feel about things

Does not describe me at all	Describes me very little	Describes me a little	Describes me somewhat	Describes me mostly	Describes me totally

40. I share my lunch with classmates when they ask me to

Does not describe me at all	Describes me very little	Describes me a little	Describes me somewhat	Describes me mostly	Describes me totally

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ADULT MEASURES

Assertion Inventory (from Gambrill & Richey, 1975)

Many people experience difficulty in handling interpersonal situations requiring them to assert themselves in some way, for example, turning down a request, asking a favor, giving someone a compliment, expressing disapproval or approval, etc. Please indicate your degree of discomfort or anxiety in the space provided before each situation listed below. Utilize the following scale to indicate degree of discomfort.

> 1 = none
> 2 = a little
> 3 = a fair amount
> 4 = much
> 5 = very much

Then, go over the list a second time and indicate after each item the probability or likelihood of your displaying the behavior if actually presented in the situation. For example, if you rarely apologize when you are at fault, you would probably mark a "4" after that item. Utilize the following scale to indicate response probability.

> 1 = always do it
> 2 = usually do it
> 3 = do it about half the time
> 4 = rarely do it
> 5 = never do it

*Note. It is important to cover your discomfort ratings (located in front of the items) while indicating response probability. Otherwise, one rating may contaminate the other and a realistic assessment of your behavior is unlikely. To correct for this, place a piece of paper over your discomfort ratings while responding to the situations a second time for response probability.

Degree of Discomfort	Situation	Response Probability
_____	1. Turn down a request to borrow your car	_____
_____	2. Compliment a friend	_____
_____	3. Ask a favor of someone	_____
_____	4. Resist sales pressure	_____
_____	5. Apologize when you are at fault	_____
_____	6. Turn down a request for a meeting or date	_____
_____	7. Admit fear and request consideration	_____

_____	8. Tell a person you are intimately involved when he/she says or does something that bothers you	_____
_____	9. Ask for a raise	_____
_____	10. Admit ignorance in some area	_____
_____	11. Turn down a request to borrow money	_____
_____	12. Ask personal questions	_____
_____	13. Turn off a talkative friend	_____
_____	14. Ask for constructive criticism	_____
_____	15. Initiate a conversation with a stranger	_____
_____	16. Compliment a person you are romantically involved or interested in	_____
_____	17. Request a meeting or a date with a person	_____
_____	18. Your initial request for a meeting is turned down and you ask the person again at a later time	_____
_____	19. Admit confusion about a point under discussion and ask for clarification	_____
_____	20. Apply for a job	_____
_____	21. Ask whether you have offended someone	_____
_____	22. Tell someone that you like them	_____
_____	23. Request expected service when such is not forthcoming, i.e. in a restaurant	_____
_____	24. Discuss openly with the person his/her criticism of your behavior	_____
_____	25. Return defective items, e.g. store/restaurant	_____
_____	26. Express an opinion that differs from that of the person you are talking to	_____
_____	27. Resist sexual overtures when you are not interested	_____
_____	28. Tell the person when you feel he/she has done something that is unfair to you	_____

_____	29. Accept a date	_____
_____	30. Tell someone good news about yourself	_____
_____	31. Resist pressure to drink	_____
_____	32. Resist a significant person's unfair demand	_____
_____	33. Quit a job	_____
_____	34. Resist pressure to "turn on"	_____
_____	35. Discuss openly with the person his/her criticism of your work	_____
_____	36. Request the return of borrowed items	_____
_____	37. Request compliments	_____
_____	38. Continue to converse with someone who disagrees with you	_____
_____	39. Tell a friend or someone with whom you work when he/she says something that bothers you	_____
_____	40. Ask a person who is annoying you in a public situation to stop	_____

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Assertion Self-Statement Test (from Bruch, Haase, & Purcell, 1984)

Please rate each statement indicating how frequently you have these thoughts when asked to do something that you think you should refuse on the following scale:

1. I was thinking that it was not worth the hassle to refuse.
2. I was worried about what the other person would think about me if I refused.
3. I was thinking that I would probably feel guilty later if I refused to do the person a favor.
4. I was thinking that it is not my responsibility to help people I hardly know.
5. I was thinking that there didn't seem to be a good reason why I should say yes.
6. I was thinking that it was my responsibility to help those who need me.
7. I was thinking that I just don't feel like saying yes.
8. I was worried that the person might become angry if I refused.
9. I was thinking that this request is an unreasonable one.
10. I was thinking that the person could ask someone else.
11. I was thinking that it is better to help others than to be self-centered.
12. I was thinking that I will be happy later if I don't commit myself to something I don't want to do.
13. I was thinking that I would get embarrassed if I refused.
14. I was concerned that the person would think I was selfish if I refused.
15. I was thinking that this person really seems to need me.

16. I was thinking that I am perfectly free to say no.
17. I was thinking that if I don't say no now, I'll end up doing something I don't want to do.
18. I was thinking that it is always good to be helpful to other people.
19. I was thinking that the person might be hurt or insulted if I refused.
20. I was thinking that this person should take care of his own business.
21. I was thinking that this request sounds pretty reasonable.
22. I was thinking that people will dislike me if I always refuse.
23. I was thinking that my own plans are too important.
24. I was thinking that I don't have to please this person by giving in to his/her request.
25. I was thinking that it is morally wrong to refuse someone who needs help.
26. I was thinking that if I commit myself, it will interfere with my plans.
27. I was thinking that a friendly person would not refuse in this situation.
28. I was thinking that I am too busy now to say yes.
29. I was afraid that there would be a scene if I said no.
30. I was thinking that since I hardly know the person, why should I go out of my way for him/her.
31. I was thinking that it doesn't matter what the person thinks of me.
32. I was thinking that this request is an imposition on me.

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Dating and Assertion Questionnaire (from Levenson, & Gottman, 1978)

We are interested in finding out something about the likelihood of your acting in certain ways. Below you will find a list of specific behaviors you may or may not exhibit. Use the following rating scale:

1 = I never do this
2 = I sometimes do this
3 = I often do this
4 = I do this almost always

Now after each of these items on the following list, place the number which best indicates the likelihood of your behaving in that way. Be as objective as possible

1. Stand up for your rights
2. Maintain a long conversation with member of opposite sex
3. Be confident in your ability to succeed in a situation in which you have to demonstrate your competence
4. Say "no" when you feel like it
5. Get a second date with someone you have dated once
6. Assume a role of leadership
7. Be able to accurately sense how a member of the opposite sex feels about you
8. Have an intimate emotional relationship with a member of the opposite sex
9. Have an intimate physical relationship with a member of the opposite sex

The following questions describe a variety of social situations that you might encounter. In each situation you may feel "put on the spot." Some situations may be familiar to you, and others may not. We'd like you to read each situation and try to imagine yourself actually in

the situation. The more vividly you get a mental picture and place yourself into the situation, the better. After each situation circle one of the numbers from 1 to 5 which best describes you using the following scale:

1 = I would be so uncomfortable and so unable to handle this situation that I would avoid it if possible.
2 = I would feel very uncomfortable and would have a lot of difficulty in handling this situation.
3 = I would feel somewhat uncomfortable and would have some difficulty in handling this situation.
4 = I would feel quite comfortable and would be able to handle this situation fairly well.
5 = I would feel very comfortable and be able to handle this situation very well.

1. You're waiting patiently in line at the checkout when a couple of people cut right in front of you. You feel really annoyed and want to tell them to wait their turn at the back of the line. One of them says, "Look, you don't mind do you? But we're in a terrible hurry."

       1   2   3   4   5

2. You have enjoyed this date and would like to see your date again. The evening is coming to a close and you decide to say something.

       1   2   3   4   5

3. You are talking to a professor about dropping a class. You explain your situation, which you fabricate slightly for effect. Looking at his grade book the professor comments that you are pretty far behind. You go into greater detail about why you are behind and why you'd like to be allowed to withdraw from his class. He then says, "I'm sorry, but it's against university policy to let you withdraw this late in the semester."

       1   2   3   4   5

4. You meet someone you don't know very well but are attracted to. You want to ask them out for a date.

       1   2   3   4   5

5. You meet someone of the opposite sex at lunch and have a very enjoyable conversation. You'd like to get together again and decide to say something.

       1   2   3   4   5

6. Your roommate has several obnoxious traits that upset you very much. So far, you have mentioned them once or twice, but no noticeable changes have occurred. You still have 3 months left to live together. You decide to say something.

       1   2   3   4   5

7. You're with a small group of people who don't know you too well. Most of them are expressing a point of view that you disagree with. You'd like to state your opinion even if it means you'll probably be the minority.

       1   2   3   4   5

8. You go to a party where you don't know many people. Someone of the opposite sex approaches you and introduces themselves. You want to start a conversation and get to know him/her.

<div align="center">1   2   3   4   5</div>

9. You are trying to make an appointment with the dean. You are talking to his secretary face-to-face. She asks you what division you are in and when you tell her, she starts asking you questions about the nature of your problem. You inquire as to why she is asking all these questions and she replies very snobbishly that she is the person who decides if your problem is important enough to warrant an audience with the dean. You decide to say something

<div align="center">1   2   3   4   5</div>

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Interpersonal Competence Questionnaire (from Buhrmeister et al., 1988)

Each item of the ICQ briefly describes a common interpersonal situation. Please respond as to how comfortable or uncomfortable you would be in each situation using the following scale:

1 = I'm poor at this; I'd feel so uncomfortable and unable to handle this situation, I'd avoid it if possible
2 = I'm only fair at this; I'd feel uncomfortable and would have lots of difficulty handling this situation
3 = I'm OK at this; I'd feel somewhat uncomfortable and have some difficulty handling this situation
4 = I'm good at this; I'd feel quite comfortable and able to handle this situation
5 = I'm EXTREMELY good at this; I'd feel very comfortable and could handle this situation very well

Make two ratings per item. In one column, indicate how you would react with a same-sex friend, and in the second column rate how you would react with an opposite-sex date or romantic partner.

Friend	Partner		
1—2—3—4—5	1—2—3—4—5	1.	Asking or suggesting to someone new that you get together and do something, e.g., go out together.
1—2—3—4—5	1—2—3—4—5	2.	Telling a companion you don't like a certain way he or she has been treating you.
1—2—3—4—5	1—2—3—4—5	3.	Revealing something intimate about yourself while talking with someone you're getting to know.
1—2—3—4—5	1—2—3—4—5	4.	Helping a close companion work through his or her thoughts and feelings about a major life decision, e.g., a career choice.
1—2—3—4—5	1—2—3—4—5	5.	Being able to admit that you might be wrong when a disagreement with a close companion begins to build into a serious fight.
1—2—3—4—5	1—2—3—4—5	6.	Finding and suggesting things to do with new people whom you find interesting and attractive.
1—2—3—4—5	1—2—3—4—5	7.	Saying "no" when a date/acquaintance asks you to do something you don't want to do.
1—2—3—4—5	1—2—3—4—5	8.	Confiding in a new friend/date and letting him or her see your softer, more sensitive side.
1—2—3—4—5	1—2—3—4—5	9.	Being able to patiently and sensitively listen to a companion "let off steam" about outside problems s/he is having.
1—2—3—4—5	1—2—3—4—5	10.	Being able to put begrudging (resentful) feelings aside when having a fight with a close companion.
1—2—3—4—5	1—2—3—4—5	11.	Carrying on conversations with someone new whom you think you might like to get to know.
1—2—3—4—5	1—2—3—4—5	12.	Turning down a request by a companion that is unreasonable.
1—2—3—4—5	1—2—3—4—5	13.	Telling a close companion things about yourself that you're ashamed of.
1—2—3—4—5	1—2—3—4—5	14.	Helping a close companion get to the heart of a problem s/he is experiencing.
1—2—3—4—5	1—2—3—4—5	15.	When having a conflict with a close companion, really listening to his or her complaints and not trying to "read" his/her mind.
1—2—3—4—5	1—2—3—4—5	16.	Being an interesting and enjoyable person to be with when first getting to know people.

1—2—3—4—5	1—2—3—4—5	17. Standing up for your rights when a companion is neglecting you or being inconsiderate.
1—2—3—4—5	1—2—3—4—5	18. Letting a new companion get to know the "real you."
1—2—3—4—5	1—2—3—4—5	19. Helping a close companion cope with family or roommate problems.
1—2—3—4—5	1—2—3—4—5	20. Being able to take a companion's perspective in a fight and really understand his or her point of view.
1—2—3—4—5	1—2—3—4—5	21. Introducing yourself to someone you might like to get to know (or date).
1—2—3—4—5	1—2—3—4—5	22. Telling a date/acquaintance that he or she is doing something that embarrasses you.
1—2—3—4—5	1—2—3—4—5	23. Letting down your protective "outer shell" and trusting a close companion.
1—2—3—4—5	1—2—3—4—5	24. Being a good and sensitive listener for a companion who is upset.
1—2—3—4—5	1—2—3—4—5	25. Refraining from saying things that might cause a disagreement to build into a big fight.
1—2—3—4—5	1—2—3—4—5	26. Calling (on the phone) a new date/acquaintance to set up a time to get together and do something.
1—2—3—4—5	1—2—3—4—5	27. Confronting your close companion when he or she has broken a promise.
1—2—3—4—5	1—2—3—4—5	28. Telling a close companion about the things that secretly make you feel anxious or afraid.
1—2—3—4—5	1—2—3—4—5	29. Being able to say and do things to support a close companion when s/he is feeling down.
1—2—3—4—5	1—2—3—4—5	30. Being able to work through a specific problem with a companion without resorting to global accusations ("you always do that").
1—2—3—4—5	1—2—3—4—5	31. Telling a companion that he or she has done something to hurt your feelings.
1—2—3—4—5	1—2—3—4—5	32. Presenting good first impressions to people you might like to become friends with (or date).
1—2—3—4—5	1—2—3—4—5	33. Being able to show genuine empathetic concern even when a companion's problem is uninteresting to you.
1—2—3—4—5	1—2—3—4—5	34. When angry with a companion, being able to accept that s/he has a valid point of view even if you don't agree with that view.

1—2—3—4—5   1—2—3—4—5   35. Not exploding at a close companion (even when it is justified) in order to avoid a damaging conflict.

1—2—3—4—5   1—2—3—4—5   36. Going to parties or gatherings where you don't know people well in order to start up new relationships.

1—2—3—4—5   1—2—3—4—5   37. Telling a date/acquaintance that he or she has done something that made you angry.

1—2—3—4—5   1—2—3—4—5   38. Telling a close companion how much you appreciate and care for him or her.

1—2—3—4—5   1—2—3—4—5   39. Knowing how to move a conversation with a date/acquaintance beyond superficial talk to really get to know each other.

1—2—3—4—5   1—2—3—4—5   40. When a close companion needs help and support, being able to give advice in ways that are well received.

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Inventory of Interpersonal Problems (from Barkham et al., 1996)

Items are scored on a five-point scale from 0 ("not at all") to 4 ("extremely")

How much have you been distressed by. . .

0—1—2—3—4   1) ... having to join in on groups
0—1—2—3—4   2) ... having to be assertive with another person
0—1—2—3—4   3) ... having to make friends
0—1—2—3—4   4) ... having to disagree with other people
0—1—2—3—4   5) ... having to make a long-term commitment to another person
0—1—2—3—4   6) ... having to be aggressive toward other people when the situation calls for it
0—1—2—3—4   7) ... having to socialize with other people
0—1—2—3—4   8) ... having to show affection to people
0—1—2—3—4   9) ... having to feel comfortable around other people
0—1—2—3—4   10) ... having to tell personal things to other people
0—1—2—3—4   11) ... having to be firm when I need to be
0—1—2—3—4   12) ... having to experience a feeling of love for another person
0—1—2—3—4   13) ... having to be supportive of another person's goals in life
0—1—2—3—4   14) ... having to really care about other people's problems
0—1—2—3—4   15) ... having to put somebody else's needs before my own
0—1—2—3—4   16) ... having to take instructions from people who have authority over me
0—1—2—3—4   17) ... having to open up and tell my feelings to another person
0—1—2—3—4   18) ... having to attend to my own welfare when somebody else is needy
0—1—2—3—4   19) ... having to be involved with another person without feeling trapped
0—1—2—3—4   20) I fight with other people
0—1—2—3—4   21) I get irritated or annoyed too easily
0—1—2—3—4   22) I want people to admire me too much
0—1—2—3—4   23) I am too dependent on other people
0—1—2—3—4   24) I open up to people too much
0—1—2—3—4   25) I put other people's needs before my own too much
0—1—2—3—4   26) I am overly generous to other people
0—1—2—3—4   27) I worry too much about other people's reactions to me
0—1—2—3—4   28) I lose my temper too easily
0—1—2—3—4   29) I tell personal things to other people too much
0—1—2—3—4   30) I argue with other people too much
0—1—2—3—4   31) I am too envious and jealous of other people
0—1—2—3—4   32) I am affected by another person's misery too much

Rathus Assertiveness Schedule (from Rathus, 1973)

Directions: Indicate how characteristic or descriptive each of the following statements is of you by using the code given below.

+3 very characteristic of me, extremely descriptive
+2 rather characteristic of me, quite descriptive
+1 somewhat characteristic of me, slightly descriptive
−1 somewhat uncharacteristic of me, slightly nondescriptive

−2 rather uncharacteristic of me, quite nondescriptive
−3 very uncharacteristic of me, extremely nondescriptive

—1. Most people seem to be more aggressive and assertive than I am. *
—2. I have hesitated to make or accept dates because of "shyness." *
—3. When the food served at a restaurant is not done to my satisfaction, I complain about it to the waiter or waitress.
—4. I am careful to avoid hurting other people's feelings, even when I feel that I have been injured. *
—5. If a salesman has gone to considerable trouble to show me merchandise which is not quite suitable, I have a difficult time saying "No." *
—6. When I am asked to do something, I insist upon knowing why.
—7. There are times when I look for a good, vigorous argument.
—8. I strive to get ahead as well as most people in my position.
—9. To be honest, people often take advantage of me. *
—10. I enjoy starting conversations with new acquaintances and strangers.
—11. I often don't know what to say to attractive persons of the opposite sex. *
—12. I will hesitate to make phone calls to business establishments and institutions. *
—13. I would rather apply for a job or for admission to a college by writing letters than by going through the personal interviews. *
—14. I find it embarrassing to return merchandise. *
—15. If a close and respected relative were annoying me, I would smother my feelings rather than express my annoyance. *
—16. I have avoided asking questions for fear of sounding stupid. *
—17. During an argument I am sometimes afraid that I will get so upset that I will shake all over.*
—18. If a famed and respected lecturer makes a statement which I think is incorrect, I will have the audience hear my point of view as well.
—19. I avoid arguing over prices with clerks and salesmen. *
—20. When I have done something important or worthwhile, I manage to let others know about it.
—21. I am open and frank about my feelings.
—22. If someone has been spreading false and bad stories about me, I see him (her) as soon as possible to "have a talk" about it.
—23. I often have a hard time saying "No."*
—24. I tend to bottle up my emotions rather than make a scene. *
—25. I complain about poor service in a restaurant and elsewhere.
—26. When I am given a complaint, I sometimes just don't know what to say. *
—27. If a couple near me in a theatre or at a lecture were conversing rather loudly, I would ask them to be quiet or to take their conversation elsewhere.
—28. Anyone attempting to push ahead of me in a line is in for a good battle.
—29. I am quick to express an opinion.
—30. There are times when I just can't say anything. *

* Reversed item

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Scale for Interpersonal Behavior (from Arrindell & van der Ende, 1985; Arrindell et al., 1990)

In a social situation, many people find it difficult to react in the way they really want to. For instance, they may find it hard to refuse a request, to ask for help, or to show approval or disapproval.

Below you will find a list of some such situations, all of which involve social interactions.

We should like you to work through all the questions twice. On each occasion, we should like you to record the first response that comes to mind. Please do not skip any questi ons, and complete the questionnaire as quickly as you can.

First, we would like you to indicate in the columns preceding each of the situations (items) how nervous or tense you would feel if you behaved in the way described. It is possible to answer in any of the following ways:

1	2	3	4	5
Not at all	*somewhat*	*rather*	*very*	*extremely*

After you have worked through the items once, we should like you to go through them again. Now we would like you to indicate in the columns following the situations how often you behave in the way described. For this, use one of the following possibilities:

1	2	3	4	5
I never do	*I rarely do*	*I sometimes do*	*I usually do*	*I always do*

Scale for Interpersonal Behavior (from Arrindell et al., 1990)

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After you have worked through the items once, we would like you to go through them again. Now we would like you to indicate in the columns following the situations how often you behave in the way described. For this, use one of the following possibilities:

1	2	3	4	5
I never do	*I rarely do*	*I sometimes do*	*I usually do*	*I always do*

Nervous	How Often	
———	———	1. Starting a conversation with a stranger.
———	———	2. Telling someone who interrupts you that you find this annoying.
———	———	3. Telling a group of people about something you have experienced.
———	———	4. Asking someone to explain something you have not understood.
———	———	5. Offering an opinion that differs from that of the person you are talking to.
———	———	6. Acknowledging a compliment about your personal appearance.
———	———	7. Telling a friend or an acquaintance that he/she is doing something that annoys you.
———	———	8. Telling someone that you like him/her.
———	———	9. Refusing a request made by a person in authority.
———	———	10. Asking people to make allowance for the fact that you are afraid of something.
———	———	11. Maintaining your opinion in the face of a good friend who disagrees with you.
———	———	12. Admitting that you are wrong.
———	———	13. Looking at the person you are talking to.
———	———	14. Inviting an acquaintance to join you at a social event (for instance a social evening or party).
———	———	15. Telling someone that you think he/she treated you unfairly.
———	———	16. Telling someone that you are fond of him/her.
———	———	17. Declining a drink, especially if it is offered to you repeatedly.
———	———	18. Telling someone who has justly criticized you that he/she is right.
———	———	19. Acknowledging a compliment on something you have done.
———	———	20. Accepting someone's invitation to join him/her at a social event.
———	———	21. Starting a conversation with a man/woman you find attractive.
———	———	22. Refusing a request made by someone you are fond of.
———	———	23. Discussing someone's criticism of something you have done.

REPRINTS

——————   ——————   24. Saying that you enjoy the experience of being told that you are liked.

——————   ——————   25. Asking an acquaintance to help you with a job.

——————   ——————   26. Putting forward your opinion during a conversation with strangers.

——————   ——————   27. Joining in the conversation of a group of people.

——————   ——————   28. Asking people to return things they have borrowed.

——————   ——————   29. Inviting an acquaintance for a drink.

——————   ——————   30. Accepting an offer of help.

——————   ——————   31. Refusing to give money to collections.

——————   ——————   32. Maintaining your own opinion against a person who has a very pronounced opinion.

——————   ——————   33. Asking a person to stop doing something that annoys you (for instance in a train, restaurant or cinema)

——————   ——————   34. Protesting when someone jumps the queue.

——————   ——————   35. Offering your opinion to someone who knows more about the subject than you do.

——————   ——————   36. Asking someone whether you have hurt him/her.

——————   ——————   37. Saying that you enjoy people telling you that they are very fond of you.

——————   ——————   38. Giving your opinion to a person in authority.

——————   ——————   39. Refusing unsatisfactory goods or service (for instance in a shop or in a restaurant).

——————   ——————   40. Telling someone who did something for you how pleased you are.

——————   ——————   41. Discussing with someone your impression that they are trying to avoid you.

——————   ——————   42. Saying that you are sorry when you have made a mistake.

——————   ——————   43. Telling someone that you are very pleased with something you have done.

——————   ——————   44. Explaining your philosophy of life.

——————   ——————   45. Going up to someone in order to make their acquaintance.

————	————

46. Asking someone to show you the way.
47. Asking someone to criticize something you have made.
48. Refusing to lend something to a near acquaintance.
49. Admitting that you know little about a particular subject.
50. Insisting that someone does his/her share in a joint task.

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Revised Self-Monitoring Scale (from Cramer & Gruman, 2002)

The statements on the following pages concern your personal reactions to a number of different situations. No two statements are exactly alike, so consider each statement carefully before answering. If a statement is TRUE or MOSTLY TRUE as applied to you, blacken the space marked T on the answer sheet. If a statement is FALSE or NOT USUALLY TRUE as applied to you, blacken the space marked F. Do not put your answers on this test booklet itself. It is important that you answer as frankly and as honestly as you can. Your answers will remain in the strictest confidence.

1. ———In social situations, I have the ability to alter my behavior if I feel that something else is called for.
2. ———I am often able to read people's true emotions correctly through their eyes.
3. ———I have the ability to control the way I come across to people, depending on the impression I wish to give them.
4. ———I am sensitive to even the slightest change in the facial expression of the person I'm conversing with.
5. ———My powers of intuition are quite good when it comes to understanding others' emotions and motives.
6. ———I can usually tell when others consider a joke to be in bad taste, even though they may laugh convincingly.
7. ———When I feel that the image I am portraying isn't working, I can readily change it to something that does.
8. ———I can usually tell when I've said something inappropriate by reading it in the listener's eyes.
9. ———I have trouble changing my behavior to meet the requirements of any situation I find myself in.
10. ———I have found that I can adjust my behavior to meet the requirements of any situation I find myself in.
11. ———If someone is lying to me, I usually know it at once from that person's manner of expression.
12. ———Even when it might be to my advantage, I have difficulty putting up a good front.
13. ———Once I know what the situation calls for, it's easy for me to regulate my actions accordingly.

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THE SOCIAL FUNCTIONING SCALE

INDIVIDUALS VERSION

NAME: _____

This questionnaire helps us to learn how you have been getting on since you became ill.

This questionnaire takes about 20 minutes to complete- before getting started could you please answer the following:

1. Where do you live?

Answer: _____
_____

2. Who do you live with?

   Answer: _____

1. What time do you get up each day?

   Average weekday _____   Average weekend (if different) _____

2. On average how many waking hours do you spend alone in one day?

   e.g. alone in a room, walking out alone, listening to radio or watching TV alone etc.

   Please tick one of the boxes:

0-3 hours	Very little spent alone	
3-6 hours	Some of time	
6-9 hours	Quite a lot of the time	
9-12 hours	A great deal of time	
12 hours	Practically all the time	

3. How often will you start a conversation at home?

Almost never	Rarely	Sometimes	Often

4. How often do you leave the house (for any reason)?

Almost never	Rarely	Sometimes	Often

5. How do you react to the presence of strangers/people that you don't know?

Avoid them	
Feel nervous	
Accept them	
Like them	

1. How many friends do you have at the moment? (people who you see regularly, do activities with etc.)

2. Do you have a partner?

Yes	
No	

3. How often are you able to carry out a sensible or rational conversation?
   Please tick a box

Almost never	
Rarely	
Sometimes	
Often	

4. How easy or difficult do you find it talking to people at the moment?

Very easy	
Quite easy	
Average	
Quite difficult	
Very difficult	

Please place a tick against each item to show how often you have done the following over the *past 3 months*.

	Never	Rarely	Sometimes	Often
Buying items from the shops (without help)				
Washing pots, tidying up etc.				
Regular washing, bathing etc.				
Washing own clothes				
Looking for a job/working				
Doing the food shopping				
Prepare and cook a meal				
Leaving the house alone				
Using buses, trains etc.				
Using money				
Budgeting				
Choosing and buying clothes for self				
Take care of personal appearance.				

Please place a tick in the appropriate column to indicate how often you have done any of the following activities *over the past 3 months.*

	Never	Rarely	Sometimes	Often
Playing musical instruments				
Sewing, knitting				
Gardening				
Reading things				
Watching television				
Listening to records or radio				
Cooking				
D.I.Y activities (e.g. putting up shelves)				
Fixing things (car, bike, household etc).				
Walking, rambling				
Driving\cycling (as a recreation)				
Swimming				
Hobby (e.g. collecting things)				
Shopping				
Artistic activity (painting, crafts etc.)				

Please place a tick in the appropriate column to indicate how often you have done any of the following activities *over the past 3 months.*

	Never	Rarely	Sometimes	Often
Cinema				
Theatre\Concert				
Watching an indoor sport (squash, table-tennis).				
Watching an outdoor sport (football, rugby).				
Art gallery\ museum.				
Exhibition.				
Visiting places of interest.				
Meetings, talks etc.				
Evening Class.				
Visiting relatives in their homes.				
Being visited by relatives.				
Visiting friends (including boy/girlfriends).				
Parties.				
Formal occasions.				
Disco etc.				
Nightclub\ Social club				
Playing an indoor sport.				
Playing an outdoor sport.				
Club\ Society.				
Pub.				
Eating Out.				
Church Activity.				

Please place a tick against each item to show how able you are at doing or using the following.

	Adequately	Needs Help	Unable	Don't know
Public transport				
Handling money.				
Budgeting.				
Cooking.				
Weekly shopping.				
Looking for a job/ in employment				
Washing own clothes.				
Personal hygiene.				
Washing, tidying etc.				
Purchasing from shops.				
Leaving the house alone.				
Choosing and buying clothes.				
Caring for personal appearance.				

Are you in regular employment? (This includes industrial therapy, rehabilitation or retraining courses).

Yes	
No	

1 *IF YES*: What sort of job .
How many hours do You work per week? .
How long have you had this job? .

2 *IF NO*: When were you last in employment? .
What sort of job was it? .
How many hours per week? .
Are you registered disabled?

Yes	
No	

Do you attend hospital as a day patient?

Yes	
No	

If not employed (do not answer if working)
Do you think you are capable of some sort of employment?

Definitely yes	Would have difficulty	Definitely no

How often do you make attempts to find a new job? (e.g. go to the Job Centre, look in the newspaper.)

Almost never	Rarely	Sometimes	Often

THE SOCIAL FUNCTIONING SCALE

RELATIVES VERSION

NAME: _____

This questionnaire helps us to learn how you have been getting on since you became ill.

This questionnaire takes about 20 minutes to complete- before getting started could you please answer the following:

1. Does your relative still live with you?
   Answer: _____
   _____

2. If no, when did your relative move away?
   Answer: _____
   _____

3. Do you still have regular contact with your relative?
   Answer:_____
   _____

1. What time does he/she get up each day?
   Average weekday _____   Average weekend (if different) _____

2. On average how many hours does he/she spend alone in one day? (e.g., alone in a room, walking out alone, listening to radio or watching TV alone etc.)
   Please tick one of the boxes:

0-3 hours	Very little spent alone	
3-6 hours	Some of time	
6-9 hours	Quite a lot of the time	
9-12 hours	A great deal of time	
12 hours	Practically all the time	

3. How often will he/she start a conversation at home?

Almost never	Rarely	Sometimes	Often

4. How often does he/she leave the house (for any reason)?

Almost never	Rarely	Sometimes	Often

5. How does he/she react to the presence of strangers/people they don't know?

Avoid them	
Feel nervous	
Accept them	
Like them	

1. How many friends does he/she have at the moment? (people he/she will see regularly, do activities with etc.)

☐

2. Does he/she have a partner?

Yes	
No	

3. How often are you able to carry out a sensible or rational conversation with him/her? Please tick a box

Almost never	
Rarely	
Sometimes	
Often	

4. How easy or difficult does he/she find it talking to people at the moment?

Very easy	
Quite easy	
Average	
Quite difficult	
Very difficult	

Please place a tick against each item to show how often she/he has done the following over the *past 3 months*.

	Never	Rarely	Sometimes	Often
Buying items from the shops (without help)				
Washing pots, tidying up etc.				
Regular washing, bathing etc.				
Washing own clothes				
Looking for a job/working				
Doing the food shopping				
Prepare and cook a meal				
Leaving the house alone				
Using buses, trains etc.				
Using money				
Budgeting				
Choosing and buying clothes for self				
Take care of personal appearance.				

Please place a tick in the appropriate column to indicate how often he/she has done any of the following activities *over the past 3 months.*

	Never	Rarely	Sometimes	Often
Playing musical instruments				
Sewing, knitting				

Gardening				
Reading things				
Watching television				
Listening to records or radio				
Cooking				
D.I.Y activities (e.g. putting up shelves)				
Fixing things (car, bike, household etc).				
Walking, rambling				
Driving\cycling (as a recreation)				
Swimming				
Hobby (e.g. collecting things)				
Shopping				
Artistic activity (painting, crafts etc.)				

Please place a tick in the appropriate column to indicate how often he/she has done any of the following activities *over the past 3 months*.

	Never	Rarely	Sometimes	Often
Cinema				
Theatre\Concert				
Watching an indoor sport (squash, table-tennis).				
Watching an outdoor sport (football, rugby).				
Art gallery\ museum.				
Exhibition.				
Visiting places of interest.				
Meetings, talks etc.				
Evening Class.				
Visiting relatives in their homes.				
Being visited by relatives.				
Visiting friends (including boy/girlfriends).				
Parties.				
Formal occasions.				
Disco etc.				
Nightclub\ Social club				
Playing an indoor sport.				
Playing an outdoor sport.				
Club\ Society.				
Pub.				
Eating Out.				
Church Activity.				

Please place a tick against each item to show how able he/she is at doing or using the following.

	Adequately	Needs Help	Unable (needs)	Not known
Public transport				
Handling money.				
Budgeting.				
Cooking for shopping.				
Weekly shopping.				
Looking for a job/working.				
Washing own clothes.				
Personal hygiene.				
Washing, tidying etc.				
Purchasing from shops.				
Leaving the house alone.				
Choosing and buying clothes.				
Caring for personal appearance.				

Wolpe-Lazarus Assertiveness Schedule (Wolpe & Lazarus, 1966)

For each of the 30 items on the WLAS, indicate whether each statement is generally TRUE or FALSE for you.

True   False

Do you protest out loud when someone pushes in front of you in a queue?

Is it difficult for you to upbraid a subordinate?

Do you avoid complaining about the poor service in a restaurant or elsewhere?

Are you inclined to be overapologetic?

Would you be very reluctant to change a garment bought a few days previously which you discover to be faulty?

If a friend unjustifiably criticizes you do you express your resentment there and then?

Do you usually try to avoid "bossy" people?

If you arrived late at a meeting would you rather stand than go to a front seat which could only be secured with a fair degree of conspicuousness?

Are you able to contradict a domineering person?

If someone "stole" into your parking place would you merely drive on?

If a salesman has gone to considerable trouble to show you some merchandise which is not quite suitable do you have difficulty in saying "no"?

Do you generally express what you feel?

If you heard that one of your friends was spreading false rumors about you, would you hesitate to "have it out" with him?

Would you have difficulty in soliciting funds for a worthy cause?

Do you usually keep your opinions to yourself?

Do you find it difficult to begin a conversation with a stranger?

Are you able openly to express love and affection?

If food which is not to your satisfaction is served up at a restaurant would you complain about it to the waiter?

Are you careful to avoid hurting other people's feelings?

If you were at a lecture and the speaker made a statement that you considered erroneous, would you question it?

If an older and respected person made a statement with which you strongly disagreed, would you express your own point of view?

Do you usually keep quiet "for the sake of peace"?

If a friend makes what you consider to be an unreasonable request are you able to refuse?

If after leaving a shop you notice that you have been given short change, do you go back and point out the error?

If a policeman should forbid you to enter premises which you are in fact fully entitled to enter would you argue with him?

If a close and respected relative were annoying you, would you smother your feelings rather than express your annoyance?

Do you find it easier to show anger towards people of your own sex than to members of the opposite sex?

Is it difficult for you to compliment and praise others?

Do you have a close confidant with whom you can discuss virtually anything?

Do you admire people who justifiably strike back when they have been wronged?

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Appendix C
Glossary

Concurrent validity

   The extent to which scores on a target measure can be used to predict an individual's score on a measure of performance collected at the same time as the target measure.

Construct validity

   The extent to which scores on a measure enter into relationships in ways predicted by theory or by previous investigations. Examinations of construct validity address the meaning of scores on a measure and are relevant to the issue of whether the instrument assesses what it purports to assess. Construct validity has several specific subtypes; other investigations that speak to construct validity, but do not fall into any of the specific subtypes, are generally called, "investigations of construct validity."

Content validity

   Whether the measure appropriately samples or represents the domain being assessed. Substantiation of content validity requires systematic, replicable development of the assessment device, often with formal review by clients or experts to ensure appropriate material is included and excluded.

Convergent validity

   The extent to which scores on the target measure correlate with scores on measures of the same construct.

Criterion-related validity

   The extent to which test scores can be used to predict an individual's performance on some important task or behavior. Examinations of criterion-related validity speak to the utility of scores on a measure rather than to their meaning. Often one ideally would like a perfect match between scores on that target measure and those on the criterion measure. There are two subtypes of criterion-related validity—concurrent validity and predictive validity.

Discriminate validity

   The extent to which scores on a measure are unrelated to scores on a measure assessing other, theoretically unrelated constructs.

Discriminative validity

The extent to which scores on a measure distinguish between groups known or suspected to differ on the construct assessed by the target measure.

Internal consistency

A form of reliability indicating the extent to which different item groupings produce consistent scores on a measure, usually measured by (Cronbach's) coefficient alpha or KR-20.

Interrater reliability

The extent to which two individuals who rate (score, or observe) the same person (or stimulus material) score the person (person's behavior, or stimulus material) consistently, usually established by having two independent observers or raters evaluate the same stimulus material at approximately the same time.

Predictive validity

The extent to which scores on a target measure can be used to predict an individual's score on a measure of performance collected some time after the target measure (i.e., in the future).

Sensitivity

The level at which a measure accurately identifies individuals who have a given characteristic in question using a given criterion or cutoff score (e.g., the proportion of people with major depression who are correctly identified as depressed by their score on a given measure of depression).

Specificity

The degree to which a measure accurately identifies people who do *not* have a characteristic that is being measured (e.g., the proportion of people who do *not* have a diagnosis of major depression and who are correctly identified as *not* depressed by their score on a given measure of depression).

Test-retest reliability

The extent to which scores on a measure are consistent over a specified period of time, established by administering the same instrument on two separate occasions.

Treatment sensitivity

Whether the measure is sensitive to changes produced by treatment that have been documented or corroborated by other measures. Note that a measure can have good content and construct validity but still not be sensitive to treatment effects.

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