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Social Skills Group Therapy for Autism Spectrum Disorders

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More examples for clinicians are needed on the implementation of data-driven intervention approaches for autism spectrum disorders (ASDs). The purpose of this case study is to present a feasible data-driven approach using a pre- and postdesign of an outpatient social skills group for children with ASD who were clinically referred rather than research recruited for services. Measurement tools with ecological validity are described, as are the treatment outcomes. Challenges included the generation of meaningful and obtainable outcomes with social validity and the development of feasible methods to evaluate clinical outcomes. Practical issues related to implementation are described that can increase researchers' understanding of the practitioner environment, and suggestions are made for data-driven methods for service delivery monitoring, accountability, and scalability.

Keywords: *Asperger's disorder; autism; effectiveness; outpatient setting; social skills; social skills group*

1 Theoretical and Research Basis

Social impairments exhibited by children and adolescents with autism spectrum disorders (ASDs) are a specific and defining diagnostic characteristic of the disorder (American Psychiatric Association [APA], 2000). The social problems have a broad impact in the areas of home, community, and school participation and are predictive of outcomes in adulthood (Mesibov, 1984). For individuals with ASDs, conceptual skills such as recognizing complex emotions (Dennis, Lockyer, & Lazenby, 2000), the causes of one's own and others' emotions, and the impact of one's own behavior on others (Heerey, Keltner, & Capps, 2003), as well as behavioral abilities such as initiating, maintaining, and responding to others are examples of problem areas that require intervention.

Several treatment approaches have been reported in the literature. Interventions are difficult to summarize because they may be categorized according to (a) the theoretical underpinnings of the approach (e.g., behavioral, cognitive-behavioral, relationship-based),

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(b) the delivery of intervention (e.g., teacher-directed, direct instruction, peer-mediated instruction), (c) the context of intervention, (e.g., school, clinic), (d) the composition of instruction (e.g., individual, group), (e) the instructional strategy (e.g., social stories, video self-modeling, social scripts), (f) the age of the participants (e.g., preschool, middle school), and (g) the level of behavior (e.g., micro, molar). For in-depth reviews of therapeutic strategies for social interventions, see Krasny, Williams, Provencal, and Ozonoff, (2003); McConnell (2002); Odom et al. (2003); and Rogers (2000). This case study focuses on one particular approach: outpatient social skills groups (SSG) conducted in a clinical setting for boys who ranged in age from 9 to 12 years. A combination of a cognitive and behavioral treatment modality (Bloomquist, 1996) was applied and included strategies developed specifically for individuals with ASD (e.g., social stories; Gray & Garand, 1993) and for other populations but reported to be effective for individuals with ASD (e.g., social scripts; Kamps, Potucek, Lopez, Kravits, & Kemmerer, 1997). Molar-level behaviors were evaluated for outcomes.

Although there are reports on the effectiveness of social skills interventions for individuals with ASD (Barnhill, Cook, Tebbenkamp, & Myles, 2002; Barry et al., 2003; Cragar & Horvath, 2003; Hwang & Hughes, 2000; Marriage, Gordon, & Brand, 1995; Mesibov, 1984; Ozonoff & Miller, 1995), there are little data on effectiveness of outpatient SSGs in particular (Klin, Volkmar, & Sparrow, 2000; Krasny et al., 2003). The only study to our knowledge that was relevant to the current report was conducted by Howlin and Yates (1999), in which they reported the outcomes of SSG therapy held in a hospital setting over 1 year. Ten males with autism or Asperger's disorder who ranged in age from 19 to 44 years (mean age 28.4 years) participated. Overall goals of the program were to increase conversational skills and independence in work and living environments. The group met monthly for 2½ hours. Initiating and maintaining conversations and problem solving were skills addressed throughout the sessions. Various methods were used to collect outcomes, including self- and caregiver reports and direct observation. Family members reported observed improvements in several areas such as conversational, social and problem-solving skills, appearance, self-confidence, independence, decision-making ability, and making and keeping friends. The self-report measure also noted improvements. Conversational outcomes were evaluated by coding of videotapes of role-plays. Significant changes were observed for increased percentage of time initiating or maintaining conversations and increased frequency of appropriate responses and decreased inappropriate utterances.

This report expands the research in ASD by adding the first case study of an SSG treatment provided in a naturalistic outpatient clinical setting with participants who were clinically referred, rather than recruited for a research study. That is, outcome measures described are used regularly as a routine component of our treatment program and were generated based on (a) ease of administration and scoring for an outpatient clinical setting, (b) sensitivity to the intervention, and (c) social validity. Social validity is the educational or clinical relevance of treatment goals, intervention procedures, and evaluation methods and is determined by the social acceptance and social significance of the treatment outcomes as viewed by the consumers (Gresham & Lopez, 1996). The time and cost of collecting outcomes data are valid parameters for consideration in evaluating the effectiveness of treatments in clinical settings (Lambert et al., 2003).

Table 1
Parental Reports of Main Concerns

Conversational Skills	Social Problem-Solving/Flexibility Skills
Have more meaningful relationships	Be more flexible and have less need to have things his own way
Be less blunt during conversations	React less strongly to minor things
Not stand too close or too far from people during interactions	Be less compulsive about having stuffed objects with him wherever he goes
Be more able (willing) to maintain complex conversations	Have less fear and frustration with people, especially unfamiliar people
Use socially appropriate behaviors during conversations	Be less perfectionistic in himself and others
Stop asking others repeated questions	Be less impulsive
Respond in a friendly manner to others	Stop touching others inappropriately
Spend more time interacting with family, rather than time alone in room	Decrease socially unacceptable behaviors (nose picking, licking hands and arms)
Learn to talk and listen for equal amounts of time	Decrease compulsive behavior (showering, washing hands)

2 Case Presentation

Six boys with a formal diagnosis of ASD were referred by their pediatricians or psychiatrists for social skills treatment intervention. Before participating in the SSG, the boys completed a manualized social skills assessment for individuals with ASD (Stone, Ruble, Coonrod, Hepburn, & Pennington, 2002) to ensure that they had appropriate task demand skills such as abilities to understand verbal instructions, complete rating scales, conduct role-plays, answer questions, read simple questions, and speak in complete sentences spontaneously and to identify treatment goals. The current study was approved by the University of Louisville Institutional Review Board and received a complete waiver of authorization for protected health information.

3 Presenting Complaints

Parents reported their primary concerns, which are summarized in Table 1. The overall concerns of parents also were analyzed and used to establish treatment goals. Parental concerns were categorized within two general domains: conversational skills and social problem-solving/flexibility skills. These two primary areas were then used as the organizing structure for the content of the social skills curriculum.

4 History

Review of medical records indicated that all boys had a Diagnostic and Statistical Manual of Mental Disorders (4th ed.; *DSM-IV*; APA, 2000) diagnosis of Autistic or

Table 2
Description of Participants

Child	DSM-IV Disorder	Comorbid Disorder(s)	Age (Years)	Verbal IQ	Performance IQ
1	Asperger's	ADHD; Dysthymic disorder	9	101	139
2	Asperger's	ADHD	11	99	112
3	Asperger's	Major depression	12	97	94
4	Asperger's	ADHD; Anxiety; Borderline intellectual functioning	11	74	71
5	Autistic	None	11	77 (SB-LM)	122 (Leiter)
6	Autistic	Generalized anxiety	12	57	80

Note: *DSM-IV* = *Diagnostic and Statistical Manual of Mental Disorders* (4th ed.; American Psychiatric Association, 2000); ADHD = attention-deficit/hyperactivity disorder; SB-LM = Stanford Binet-LM; Leiter = Leiter International Performance Scale.

Asperger's disorder from community-based clinicians not connected to the current study. Cognitive scores were also collected from medical records. Table 2 shows the primary diagnosis, comorbid diagnosis, age, and verbal and performance IQs of the boys. With the exception of one child, the Wechsler Intelligence Scale for Children-III (Wechsler, 1991) was used to measure cognitive levels as reported in medical records. The educational placements of the boys varied. One child was home schooled, one child attended a parochial school, one child attended school 2 hours a day, and three children attended a regular education setting.

5 Assessment

As stated earlier, all children received the Treatment and Research Institute for Autism Spectrum Disorders (TRIAD) Social Skills Assessment (TSSA) prior to beginning treatment. The TSSA was developed specifically for relatively high-functioning children with ASDs (Stone et al., 2002) and is a criterion-based assessment consisting of direct child interactions and parent and teacher report. Multi-informant report is important because research on the TSSA suggests that although both parents and teachers agree on general social competencies, differences were observed for specific social behaviors based on teacher and parent report or social context (Murray, Ruble, Willis, & Malloy, 2007). The TSSA has good internal consistency (Murray et al., 2007).

Unlike other assessment tools based on rating scales (e.g., the Matson Evaluation of Social Skills in Individuals with Severe Retardation [MESSIER]; Matson, Leblanc, & Weinheimer, 1999), the TSSA includes direct child interactions that assess five broad areas of ability: (a) to label emotions of self and others and to attribute causes for various emotions, (b) to identify solutions to social problems, (c) to initiate and respond to others, (d) to take the perspective of others, and (e) to initiate, respond to, and maintain interactions. The parent and teacher forms evaluated problem behaviors that interfered with friendships, the child's understanding of emotions and perspectives of others, and skills reflecting initiating, maintaining, and responding to others.

Conversational and Social Problem-Solving/Flexibility Skills

Multiple outcomes were evaluated as recommended by Herschell, McNeil, and McNeil (2004). Outcome measures, which could be administered and scored as part of the group session and required minimal time to code, were generated due to an outpatient clinical setting context. For conversations, the method described by Howlin and Yates (1999) was adapted. Children participated in a 5-minute role-play conversation scenario involving a new student at school; they were asked to initiate a conversation. The conversations were audiotaped and coded according to a dichotomous scheme (yes/no) for the following skills: (a) obtained the person's attention, (b) asked a question or made a statement, (c) listened to the person's response, and (d) ended the conversation. The 5-minute taping session occurred during the first treatment sessions as each boy individually was asked to accompany the cotherapist to a separate room. Each conversation was scored, and the child received 4 points if he demonstrated all four skills. To establish interrater reliability of the coding system for conversations, audiotapes were made of the conversation role-plays both pre- and postintervention. Tapes were randomly sorted (for pre- or posttreatment) then coded by two independent coders who were not part of the social skills program and were unaware of the order of the tapes (pre- or post-). The number of agreements was divided by the number of agreements plus disagreements. An interrater reliability of 83% was calculated. A total of 40 minutes was required to code all tapes.

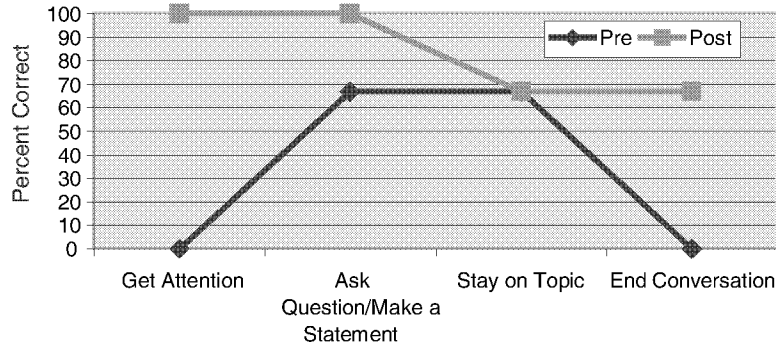
For problem-solving skills, the boys were asked to read a scenario that involved being teased or bullied by a child at school during the first session. They then completed pre- and posttreatment worksheets based on a problem-solving approach described by Bloomquist (1996). After reading the vignette, children were asked to (a) identify the problem, (b) describe how each person felt and what that person thought, (c) generate alternative solutions and outcomes to each solution, (d) pick the best solution, and (e) pick an alternative solution if the first one did not work. The same procedure described for conversation was used to code the worksheets. An interrater reliability of 97.5% was calculated. A total of 30 minutes was required to code the worksheets.

Social Validity and Generalization

To generate socially valid treatment outcomes and evaluate parental perception of these outcomes, parents completed a pre- and posttreatment questionnaire. The questionnaire asked parents to describe a common instance when their child had problems initiating or maintaining conversations and to list specific examples in which their child overreacted to a problem. Approximately 1 month following termination of the group intervention, parents were asked to describe examples of behaviors demonstrated by their child in home and community settings relating to these skills.

Because of the significant problems children with ASDs have in applying skills learned in one context to another context (Koegel, Koegel, & Parks, 1995), generalization was addressed in three ways. First, homework assignments were provided after every session. These assignments asked children to practice the skills they learned during group and report this information during the next session. Second, parents also observed the sessions behind a mirror,

Figure 1
Mean Engagement Score of Specific Social Behavior by Session



completed a rating scale on the quality of their child's social engagement behaviors during group (see Figure 1), and ensured that the children completed their weekly homework assignments. Third, parents also completed a questionnaire before and after the program asking about changes in their child's conversation and problem-solving/flexibility skills.

6 Course of Treatment and Assessment of Progress

The group sessions lasted for 75 minutes and occurred weekly over a 12-week period of time. Two licensed psychologists (L. R. and V. M. C.) implemented the treatment; one was a specialist in autism (L. R.). The time of the group was in the late afternoon, after school. One family drove more than 90 miles one way to the group, and this child missed 33% of the sessions. Attendance rate was 81% overall. Two of the boys did not complete the group because of family vacations and summer break.

The curriculum outline is provided in Table 3. Strategies for developing molar-level skills of having conversations and solving social problems consisted of a combination of therapeutic methods. General techniques, such as didactic instruction, role-plays, and feedback, were used as were strategies often employed for children with autism such as social stories, to explain perspectives of self and others, and visual supports for providing more in-depth definitions or task analysis of the skills (e.g., drawings to depict social situations). For every skill, four steps were followed: (a) a Social Story (Adams, Gouvousis, VanLue, & Waldron, 2004; Gray & Garand, 1993; James, 2004) was used to introduce the importance of the skill from another's perspective (a Social Story provides written information that describes situations, others' perspectives about the situation, skills, and responses), (b) a sorting activity using picture cards (e.g., pictures from magazines, hand drawings on 3 x 5 cards) of the right way or wrong way to perform the skill was implemented to help children develop a concrete depiction of the positive skill being taught, (c) role-plays were developed for the specific skill and, when possible, based on issues described by the parents

Table 3
Abridged Description of Curriculum

Session	General Content
1	(Obtain pretest measures on problem solving) "Making friends" (why important, how to do it) Introduction to "self-monitoring" using problem solving as an example
2	Problem solving (why it is important, the steps involved)
3	Consequences of different solutions
4	Social problem solving including "tattling"
5	Expressing how you feel and expressing anxiety or sadness
6	Social thinking (perspective taking)
7	(Obtain pretest measures on having conversations) Compliments and greetings
8	Components involved in conversations
9	Starting and ending conversations
10	Staying on topic during conversations
11	Having conversations: putting it all together
12	(Parents complete post interview on changes in problem-solving and conversational skills) (Administer posttest of solving problems and having conversations) Pizza party that incorporates skills

Note: Every session started with review of the rules and homework and ended with assignment of homework and checkout (review of number of points earned for self-monitoring and rewards). Parents completed an engagement rating scale for each session.

on the weekly engagement form (see Figure 2), and (d) homework for skill practice was provided (see Table 3). For each group session, visual schedules and self-monitoring strategies were used to help support children's task maintenance skills. Group rewards such as reinforcement of positive group behaviors (raising hands, staying in seats, answering questions) were provided as was an opportunity to take one individual 3-minute break. Games were also used to increase the boys' engagement during group activities. Social problem-solving/flexibility training was the focus for the first half of the sessions, and having conversations was the focus of the last set of sessions.

Conversational and Social Problem-Solving Skills

Figure 3 shows results from the pre- and posttreatment assessment analyzed by a coder who was blind to the content of the treatment program. At the beginning of the group intervention, when engaged in a mock conversation, none of the children obtained the listener's attention before talking or made a clear attempt to end the conversation after talking. After treatment, all children obtained the listener's attention, and most ended the conversation appropriately. No changes in staying on topic were observed.

Changes in problem solving were also evaluated. At the start and end of treatment, the boys were able to identify all aspects of a problem when explicit questions were provided; the most notable improvement was ability to generate several possible solutions to problems. More than one half of the children were able to generate more solutions to the problem at

Figure 2
Parent Engagement Report Form

Name of Child _____ Session #: _____ Today's Date: _____

Name of Parent _____ Length of Observation _____

Instructions: Please rate your child's overall skills in the following areas using the rating scale from 1 (*not at all*) to 4 (*very much*). Please focus on how well your child performs these skills when interacting with another group member, not the adults. *NA* means "not applicable."

1	2	3	4		
<i>Not at all</i>			<i>Very much</i>		
Initiate interactions					
Obtains attention from others before speaking	NA	1	2	3	4
Asks for help	NA	1	2	3	4
Offers to help another person	NA	1	2	3	4
Asks for clarification when confused	NA	1	2	3	4
Maintain interactions					
Stays on conversational topic	NA	1	2	3	4
Takes turns	NA	1	2	3	4
Makes eye contact with another person who is speaking	NA	1	2	3	4
Cooperates with group members	NA	1	2	3	4
Respond to others					
Responds to another person's initiation in a friendly manner	NA	1	2	3	4
Answers others' questions appropriately	NA	1	2	3	4
Expresses an interest in what another person says	NA	1	2	3	4
Participates appropriately in the group activity	NA	1	2	3	4

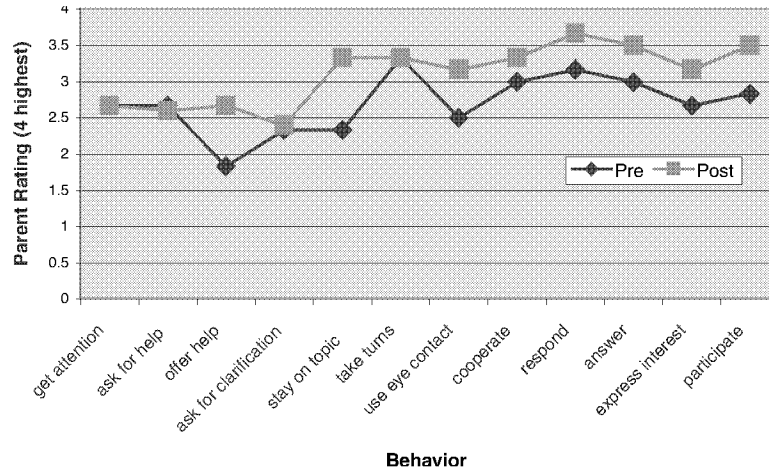
Comments: _____

the end of group compared to the start. One parent commented that at the completion of the intervention, her son was more aware that problems can have multiple solutions.

Social Behaviors Observed During SSG Therapy

Parental report based on the engagement rating scale (see Figure 2) was analyzed for mean scores over the 12 sessions. Figure 3 shows the pre- and postscores. The first four behaviors rated by parents represented initiating skills. No difference was observed for three of the four behaviors, with the exception of offering help to others. The second set of four behaviors represented maintenance skills during interactions. Parents reported that three of these four behaviors improved (staying on topic, using eye contact during interactions, and cooperating with others). They reported that taking turns did not change. The final four behaviors represented responding skills. This set of behaviors made the most notable improvement based on parent observation.

Figure 3
Rating Outcomes



Note: The Y-axis is based on the 4-point Likert-type scale (1 = *not at all* to 4 = *very much*).

7 Complicating Factors

Several challenges in the design and implementation of an effective intervention were apparent, the foremost being the collection of socially valid data. First, because clinical settings do not have the benefit of additional resources for data collection and analysis (e.g., coding of videotapes, observation of behavior outside the clinical setting), it was necessary to generate data collection methods that were easy to administer and code and did not require additional time of the clinicians and participants (apart from their time in group). Generating measures that were sensitive to treatment effects was a challenge. Finally, obtaining data from all the participants was a barrier. Consistent attendance was also a problem, especially for the boy who lived far away.

8 Managed Care Considerations

Many complex issues exist within the structure of managed care that influenced the design, selection of outcome measures, length, and time of the SSG. Most research in ASD interventions has occurred in contexts such as school or university-based settings and as part of a research protocol (Rogers, 2000), leaving little guidance on strategies to move evidence-based practices into everyday clinical settings (Howlin & Yates, 1999) where children with ASD are users of behavioral health services (Ruble & Gallagher, 2004; Ruble, Heflinger, Renfrew, & Saunders, 2005). Because of the practical barriers (Schmidt & Taylor, 2002), such as personnel, cost, and time restraints in clinical outpatient settings, feasibility of the data collection methods of outcomes is of primary importance (Glasgow, Lichtenstein, & Marcus, 2003). Establishing outcome measures that can be embedded

within treatment delivery, are easy to administer and score (Barry et al., 2003), are sensitive to detecting behavioral change, and are composed of clinical relevance (Drotar & Lemanek, 2001) is essential for effective treatment.

Furthermore, unlike Howlin and Yates's (1999) study, Medicaid and health insurance do not reimburse for 2½ hours of intervention for the CPT Code 90853 (group psychotherapy). Furthermore, insurance providers, including Medicaid, may not preauthorize SSG therapy for Autistic disorder or Asperger's disorder because of questions regarding the primary nature of ASD as medical or behavioral. Managed care organizations (MCOs) that have separate behavioral health organizations (BHOs) may indicate that ASD is a mental health diagnosis that is the responsibility of the BHO whereas the BHO insists that the MCO is responsible (Ruble et al., 2005). This issue has occurred with Medicaid MCOs as well as private health care insurers. Therefore, additional effort is put forth prior to treatment in precertifying and preauthorizing services for individuals with ASD.

9 Follow-Up

Social Validity and Generalization

Parental report of changes was solicited approximately 1 month following group. Behaviors related to having conversations and solving social problems are described in Table 4. Most of the parents provided specific examples of behaviors. Parents of two boys with the lowest cognitive functioning reported that their children required their assistance (cuing, reminding) to use skills. One of these parents indicated that observing the group was helpful because she was able to remind her child of skills based on knowing what happened in group.

10 Treatment Implications of the Case

To begin the discussion on issues related to data-driven practices for clinicians, this case study investigated outcome measures that were based on direct observation and indirect measurement. Direct measures included analog assessments of conversation and problem solving. The analog assessments were partially sensitive to treatment effects. Consumer feedback suggested that generalization occurred for problem-solving skills in home and community environments. Indirect measures comprised parent questionnaires that were used to address the social validation of our program. The questionnaires helped identify treatment goals and collect information on parental perception of skills learned and observed in home and community settings. Another unanticipated benefit of parental participation in data collection was related not only to obtaining information for outcomes but also to increasing parental attention to specific social behaviors. Increasing parental observations of specific skills may enhance their ability to scaffold successful interactions outside the clinical setting and, thus, increase the likelihood of the children applying new skills to natural environments. Thus, outcome measures that include parent participation/observation may be useful in efficacy research.

Table 4
Postassessment of Parental Report of Observation of Target Skills

Conversational Skills	Social Problem-Solving / Flexibility Skills
In group, he learned to “converse” about something other than HIS THING. We carry over activities at home so they may become more natural for him eventually.	I have new ideas to help him problem solve. I can suggest different ways to help him, which has been good, and may eventually “sink in,” and he’ll come up with them.
He introduced himself to another child and is attempting to engage with others at swimming lessons.	He is in fewer conflicts at home and is usually more willing to discuss issues.
He is a better listener and does not try to dominate the conversation as much. He stays on topic better and has better eye contact. He can read others’ nonverbal cues better.	He is more aware that there are different solutions to the same problems and he does not have to react the same way every time.
He has learned to listen a little better, but he still can get caught up in his own subject.	If reminded he can refer back to skills learned in group, but not always on his own.
He still has difficult knowing “when” it is a good time for mom to have a conversation—I’m either in a store and distracted or having another conversation with someone else.	He has trouble with baby “noises” and finds them very disturbing and can complain “loudly” in church, restaurants, stores, or any public places. Recently when the baby at the next table squealed, he announced he was going to the outside for a minute break. It was his own solution and worked great.

11 Recommendations to Clinicians and Students

The urgency for providing effective services to children with ASDs necessitates dialogue between clinicians and researchers. Researchers can assist clinicians by providing evidence of efficacy-based treatments using randomized controlled studies, single-case designs, and comparison groups with established outcomes. Clinicians, on the other hand, can provide guidance on the context variables that affect treatment outcome as well as feedback on the feasibility of manualized treatment programs and outcome measures. A challenge to researchers is the generation of outcomes that are sensitive to the intervention, easy to measure by clinicians in routine practice (Lambert et al., 2003), and relevant to the consumer. Lambert et al. (2003) provided an innovative example of how to integrate a data-driven approach within clinical practice. They conducted a meta-analysis of treatment outcome studies that revealed that clinicians who received feedback on client progress demonstrated improved client positive outcomes and decreased client deterioration. On a weekly basis, clients completed a self-report normative measure called the Outcome Questionnaire-45 (Lambert et al., 1996). Scores were converted to a Reliable Change Index and served as feedback for the clinicians. Clients who changed at least 14 points were judged as making a reliable change in one of three groups (improvers, no changers, and deteriorators). Establishing a similar feedback system in autism appears elusive given the pervasive, longitudinal, and heterogeneous nature of the core social impairments. The establishment and use of self-report measures has not been studied in ASDs and could be an area of future

research. It is unknown to what extent individuals with autism or Asperger's disorder can provide reliable and valid self-report measures of social skills. Nevertheless, future research using individual goal setting and consistent feedback to clinicians is promising.

This case study example of group application of a data-driven approach to social skills intervention in a clinic outpatient setting did have limitations. First, no direct observational data were collected on the maintenance of skills postintervention. Although it is not financially feasible for clinicians to conduct behavioral observations of skills outside clinic settings because of a lack of reimbursement and time, an alternative approach is obtaining parent and teacher ratings of skills. For clinical settings that are part of universities or take part in preservice training opportunities for students (e.g., practicum or internship sites), students can collect data from home and school environments using direct observation. Therefore, partnerships between university and clinical outpatient settings are necessary. A second limitation was a lack of a comparison group. Although it would have been feasible to use a wait-list control group and compare parent and teacher ratings of children's conversational and social problem-solving skills pre- and postintervention, many parents may not desire waiting 3 or more months to enter treatment.

In summary, an exchange of ideas between researchers and clinicians is necessary to answer important questions about how effective time-limited treatments can be delivered and how clinicians can improve services so that more children can be served effectively with fewer resources. Efficacy studies that include methodological designs that address issues of internal validity such as the inclusion of waiting-list control groups or well-designed small N (Kazdin, 1992) will lend validity to treatment outcome research (Howlin & Yates, 1999). Arguably (Chambless & Ollendick, 2001) this type of research, however, remains insufficient in the absence of consideration of the influence of context variables, if indeed the goal of efficacy research is to provide findings useful for effectiveness studies. Research that includes implementer and organizational variables, such as the credentials of the implementers, the number of treatment sessions and length of sessions, the number of children, and description of recruitment process, will allow for better comparison between studies (Howlin & Yates, 1999). Clearly, to meet these goals, a dialogue needs to begin between clinicians and researchers.

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