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Facilitating Social Inclusion of Children with an Autism Spectrum Disorder

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Children with autism face complex social challenges as they enter the mainstream educational system. The social climate present in schools can be difficult for these students to navigate, since a core challenge for autism exists in the social domains (APA, 2000). With the current push toward full inclusion, as mandated by the 1997 and 2004 reauthorizations of the Individuals with Disabilities Education Act and No Child Left Behind (IDEA, 1997; NCLB, 2001; reauthorized IDEA, 2004), children with autism have more opportunities to interact with their peers. However, inclusion alone may be insufficient for the effective integration of children with autism into the social networks of their typically developing peers (Burack, Root, & Zigler, 1997), and could even be to their social disadvantage (Ochs et al., 2001; Sale & Carey, 1995).

Parents identify social skills as the top priority for their child, but also voice significant dissatisfaction with the availability of school-based supports and level of attention schools pay to these issues (Kasari et al., 1999). If they can afford it, parents seek social tutoring for their children, usually in the form of clinic-based social skills groups. Several evidence-based social skills interventions exist for children with autism; yet reviews note that clinic-based social skills groups do not maintain gains over time or generalize to school settings. One reason may be that these programs are not *personalized* (Bellini et al., 2007). Group social skills programs have a particular focus (e.g., emotion identification or friendship devel-

opment) and a set curriculum. Children who participate are rarely observed in their natural environments so that their social "personality" and particular skills (strengths and weaknesses) are unknown. The selected social skills program may not be a good match for the child's individual needs, perhaps explaining why treatment does not maintain or generalize.

In this chapter we describe interventions for children with autism that focus on their core social impairments. We note that one of the most striking aspects of autism is the variability of the symptoms. This variability has to be considered in finding effective interventions.

Early Difficulties

At young ages, children with autism seem less aware of their peers than children who are typically developing. Indeed, in one of the first published studies about children with autism, Kanner (1943) noted that Richard was "quite self-sufficient in his play" (p. 225) at 3 years, 3 months, a time when most children are interested in playing with others. Likewise, Virginia "sat among the children, seemingly not even noticing what went on, and gave the impression of being self-absorbed" (p. 231). Frederick actively avoided others; "when a fourth person entered the room, he retreated for a minute or two behind the bookcase saying, 'I don't want you' and waving him away."

The last thirty years of research have confirmed many of Kanner's original observations. The children Kanner described (as above) likely suffered from two under-developed core areas of development—***joint attention,*** an early social communication skill, and ***flexible social play skills.*** Both of these areas of development affect the extent to which young children can engage with others in general and other children, specifically.

Joint attention skills involve sharing information or experience with others. These skills are shown through shared and coordinated looks between people and objects, points to share, and attempts to show an object or share an experience. These skills are different from requesting skills in which the child may use points and reaches to indicate a need or desire for something. Children with autism have less difficulty with requesting skills than they do with joint attention or sharing skills. They also have greater difficulty with initiating these skills than they do in responding to the gestures of others. Joint attention skills are communicative because they provide an opportunity to share something together; thus, young children may show a new toy to their playmate, or they exchange looks vis-a vis some event or action.

Social play serves a similar function. Play acts are characterized as functional or symbolic; children engage in play independently but they also spend

large amounts of time engaging in play with others. Functional play involves using toys as they were intended. An example is when children play together by stacking large blocks on top of each other to create a tower with the goal of knocking it down. Symbolic play involves the representational use of objects, either pretending one object represents another, or attributing imaginary characteristics to objects. Symbolic play also affords children an opportunity to use language in situations they co-create with others (using language to demonstrate their imagination in the absence of objects).

Joint attention and symbolic play both provide an important developmental opportunity. Significant associations have been found between these early skills and subsequent language development (Mundy, Sigman, & Kasari, 1990), and later social interactions with peers (Sigman & Ruskin, 1999).

Assessments to Determine Early Intervention Targets

In determining appropriate intervention targets, structured assessments should be completed prior to beginning intervention, during intervention phases, and at the intervention completion and follow up assessment time points. Assessments should be relevant to the intervention. Thus, in targeting joint attention and play skills, we assess these skills in children prior to beginning intervention. The Early Social Communication Scales (ESCS) (Mundy, Hogan, & Doehring, 1996) are used to assess the child's initiations and responses to joint attention, behavior regulation, and social interaction. Total frequency scores are summed within each category, and these data provide needed information on existing, emerging, and absent social communication skills.

Similarly, in determining appropriate play targets for intervention, we use the adapted Structured Play Assessment (Kasari et al., 2010), in which children are presented with five different toy sets that can elicit functional and symbolic play acts. The child's behaviors are coded for frequency of acts, and the diversity of play. Diversity is the more important variable, as it yields information on how solid the play acts are within a level of play. For example, the child may brush the doll's hair, wipe her nose, and wash her face—three different play acts within the level of play referred to as "child as agent." Level of play (from functional to symbolic levels) is coded using Lifter's coding scheme (1993). Intervention then begins at the child's mastered level of play and works toward emerging levels. Establishing play level and using this as an entry into play interventions is important so that the child is not bored by play routines, and also not overly taxed cognitively by playing at too high of a level.

Another means of assessing joint attention and play skills is to observe the child interacting with a familiar play partner, such as a caregiver. These data can be important in assessing how the child engages with others, and also provides information on the appropriateness of treatment targets.

Interventions for Social Difficulties in Early Childhood

Early difficulties in joint attention and play skills require targeted interventions. Several single subject designs and at least one group design have been reported for targeting joint attention (Kasari et al., 2006; Rocha, Schreibman & Stahmer, 2007). One issue is that researchers define joint attention in a variety of ways and sometimes confuse requesting and joint attention; however, the definitions are clear from the typical developmental literature, and the specific difficulties for children with autism have been well documented (Mundy et al., 1986). Indeed, the skills that are the most difficult to change in children with autism are initiating skills (more than responding) and joint attention (more than requesting skills).

The methods used to teach joint attention matter. It is not clear that repeated drilling with little variation or drilling a skill out of context can lead to maintained and generalized learning. Because joint attention skills are used in the context of interacting with another person, **more naturalistic approaches are more successful.** In a randomized controlled trial, we combined a naturalistic behavioral and developmental approach to teach children joint attention skills or play skills (Kasari et al., 2006). Compared to children receiving early intervention services based on applied behavior analysis (30 hours per week) with no content in social play or joint attention, the children receiving joint attention and play interventions demonstrated greater skill development, and better language a year later. Most importantly, the skills taught in sessions with a therapist generalized to parents, and the skills maintained and increased over the subsequent year (Kasari et al., 2008).

Two additional findings emerged from this line of work. One is that the joint attention and play interventions yielded similar outcomes on language. A possible shared active ingredient of each intervention was joint engagement with the adult. Thus, it is likely that creating sustained joint play routines with the child and targeting skills within this mutual engagement resulted in greater skill in joint attention and play. Second, children with the least amount of language to begin with made the most progress in later language skills if they were assigned to the joint attention intervention. These findings suggest that teaching children at their developmental level (teaching

prelinguistic skills prior to teaching verbal skills) is important to their later developmental outcome.

Mediating the interventions via adults may be a necessary first step for most children prior to peer-related interactions. Using a layered approach that involves developmental and behavioral strategies to target joint engagement, play, joint attention, and language skills, we have shown that caregivers can successfully improve these skills in their toddlers with autism (Kasari et al., 2010) and that teachers can facilitate change in their preschoolers in public preschool classrooms (Lawton & Kasari, 2011). The goal is that these skills will then generalize to their peers, although this has not been tested.

Peer-mediated interventions are accepted as the most evidence-based approach to improving peer interactions; yet, overall there are few preschool-based intervention studies. Over the past thirty years, only ten studies totaling 32 children with autism and 48 peers have been reported (Chang, 2011). All of these have been single subject designs, and fewer than half report maintenance and generalization data. Indeed, only one of three children typically maintains the skills learned via peers, with somewhat more generalizing the skills to a new context or peer. These limited findings may be due to poor implementation, as none of the studies report fidelity data.

Peer Engagement

A challenge for young children with autism is their lack of awareness of peers. For some children with little interest in peers, intervention with an adult may be an important first step prior to moving to peer interactions. For other children, peer-mediated interventions may be successful in helping to socialize and bring them into interaction with others.

The heterogeneity of the autism disorder suggests that a single intervention will not be effective with *all* children; thus, it will be important to have a means for assessing child strengths and weaknesses that will lead to effective social interventions. A child's "social personality" may provide important information about potential effective interventions. Wing and Gould (1979) provided such a categorization framework of children's social differences, ranging from *socially aloof and indifferent* to *passive* to other's attempts to engage them to *active but odd*—the child has social interest but is mostly inappropriate. Some children are expected to have *appropriate social interest and interaction*.

It may be that for aloof and indifferent children, a peer-mediated intervention will be more effective because the motivation for social engagement will not occur without active involvement of other children. For children who

are aware of social relationships but do not have the skills to engage in them appropriately, direct instruction with the child with autism may be more effective because the child may have enough awareness and motivation to change his or her behavior.

A number of programs that provide children direct instruction of social skills are available. However, one issue is that most programs do not individualize instruction to the participant; thus, the social personality of the child is not considered. Another issue is that children are often unacquainted with each other. That is, most come from different schools or classrooms, so that skills learned in the group cannot be easily maintained with the same peers. Thus, while these programs have shown change in individual child outcomes, they tend not to maintain and generalize to other contexts, such as the school.

Another issue concerns how change in social skills is measured. While there is agreement that certain skills (i.e., greetings, eye contact, conversation skills) constitute necessary social competencies, the efficacy of specific treatments cannot be compared, without agreement upon the necessary skill outcomes. The variability in outcome measures makes it difficult to make reasonable comparisons across studies. Many studies have relied on rating social skills before and after treatment. However, the evaluation of change has often been obtained from informants who may or may not have access to observed differences in the children (e.g., parents are asked to evaluate social skills at school but may not be present at school). Or the informant is actively involved in the treatment and thus may be biased (e.g., parent mediated intervention in which parents also report on change in the children). One solution to these issues is to use multiple informants (parents, teachers, peers, self-report) and to use observers of children in natural settings who are also blind to treatment condition.

Assessment to Inform Social Skills Intervention

Examining the level of social interactions a child is having without intervention can inform the specific targets of social skills intervention. As autism is highly variable, it is important to assess each child's social personality. Is the child aware of others, actively attempting to engage but going about it oddly or aggresively? Or is the child happy on his or her own, appearing socially aloof? Most social skills programs do not do in-depth assessments prior to beginning treatment. One goal of future intervention studies is to assess child behavior using a variety of direct observations and reports from informed others. This information should provide details about the child's

social skills across a variety of contexts. Interventions targeted to the child's particular set of social strengths and weaknesses should translate to greater maintenance and generalization of social skills, a persistent limitation in current intervention studies.

Depending on the focus of the intervention, outcome measures should link to the intervention content. Thus, if the goal is to increase engagement with peers during playground time at school, an outcome measure should be observations of playground behavior at school. Similarly, if the focus is on friendship development, reports of friendship reciprocity, and friendship quality from the target child and his or her nominated friends should be obtained.

Social Skills Intervention Research

Most social skills intervention programs use adults to deliver social skills information to children with ASD. Children may practice their skills with other children in the group, but the actual information often comes from the adult leader. Outcome measures are often rating scales of whether there has been an improvement in social skills, and raters are often the group leaders, or the parents. Sometimes the child with ASD is also tested for increases in his or her social knowledge using paper and pencil tests.

Few studies of school-aged children with autism have used peers as mediators of social skills interventions. Trained peers can be important change agents since they can increase the dose of intervention delivered to children with autism throughout the school day. When peers deliver the intervention, the outcomes are typically observational measures, and the study designs are overwhelmingly single subject designs (Chang, 2011). Kasari et al. (2011) implemented a randomized controlled trial in schools that compared peer mediated versus child assisted (1:1 adult-mediated) interventions and found several positive changes for children who received the peer interventions. In this study, outcome measures included observations as well as self and other reports (peers and teachers). At the end of treatment, children with autism receiving peer interventions were identified by more peers as friends, were observed to spend more social time (e.g., recess) engaged with peers, and were perceived by their classmates as being more socially connected. Teachers also noted improvements in the social skills of children randomized to the peer condition.

Similarly, Bauminger (2002) found that her peer-mediated, school-based intervention resulted in increased peer interaction and decreased isolation. The findings of these studies highlight two important elements in social skills interventions. First, the shift toward using peers in a naturalis-

tic environment, rather than teaching discrete skills in isolation, may have better results in generalizing to the school environment. Second, measuring increased friendships and social time engaged appear to be important outcome measures that may be more telling about children's social experience than measuring specific skill knowledge.

Unfortunately, few studies have examined the effects of social skills interventions delivered in the school environment. Several practices have emerged successful; however, they often lack the empirical evidence needed for widespread dissemination. School-based interventions are difficult to implement, given the abundance of obstacles presented by school systems. It is often difficult to randomize children to treatment and no treatment groups, as schools will not agree to withhold treatment. Further, the school environment presents several uncontrollable factors, potentially rendering the fidelity of intervention and delivery and quality of data collection less than desired. These practical difficulties help explain the current gap between research and practice.

Practical Suggestions for Social Skills Interventions in School

Informed by current research, assessment, and observations of children in the school setting, a few consistent recommendations for improving social skills in children with ASDs have emerged. The following section identifies why school is an important setting for intervention, then describes a few guiding principles for implementing social skills intervention in primary aged children.

School-based Treatments: Schools provide a rich social environment, fraught with different demands and pressures. Bringing a model of social skills treatment into schools is recommended for intervention efforts. All students can benefit from school-based social skills training. Further, by teaching skills in the context that they are usually encountered, students are more likely to generalize skills taught by practicing them in a relevant environment. Friendships developed in school groups may also better generalize to other social settings in school.

Strategy #1: Facilitate Engaging Social Play on the Schoolyard

Recess is a very important part of the school day for children. For many, it is one of the only times to connect with friends, as well as to get energy

out in a productive manner. Unfortunately, children with ASDs can be overwhelmed with the social expectations of the playground and the excessive sensory stimuli. Many may not know how to join in games, or cannot respond appropriately to the rules and structure of games. These behaviors can result in stigmatization or a preference for social isolation. Therefore, it is hypothesized that an effective social skills intervention at school will incorporate generalizing to the playground. Adults (school personnel and clinicians) should be trained and supported to look for kids who are isolated and encourage them to participate in games, use peers to redirect negative or isolating social behaviors, create fun and engaging games that encourage participation by all children, and fade out once children are in a sustainable level of play.

Key components: positive affect and enthusiasm from adults facilitating intervention. A high level of cooperation and investment from school personnel. Adequate supplies, play areas, and supervision.

Positive group leader qualities: flexible, creative, energetic, and playful. The ability to communicate effectively with all adults (teachers, aides, administrators, parents) in the school environment.

Strategy #2: Engineering Social Experiences with Peers

For many children with ASDs, the intrinsic reward of social interaction is not strong enough for them to initiate interactions with peers. Therefore, it is important to examine their specific interests, and create social opportunities around shared interests for children. Any structured activities or clubs that focus on activities children normally enjoy can provide a rich environment to practice social skills and foster friendships.

Often, children with ASDs do not have the social acuity to seek out and identify peers with similar interests, and therefore they have difficulty developing their social niche. Schools can play an important role, by providing the environment and clinician or school personnel support to create social groups where kids participate in activities they enjoy, and improve social skills and increase friendships as a byproduct.

Key components: school culture promoting the involvement of peers. Teacher and parental involvement in identifying supportive peers. Creativity in determining activities to capture the interest of children and peers.

Social activity ideas: playground games that are varied and age appropriate. Some examples are: cooking class, LEGO ™ or Puzzle club, video game tournament, filmmaking group, drama games, or a movie club.

Strategy #3: Sequential Interventions to Account for the Variability of Symptoms

A primary struggle in implementing social skills interventions is that a "one size fits all" approach is simply not sufficient for the variability that autism spectrum disorders present. Some children may benefit from specific skill instruction, whereas others may need practice interacting with peers in socially acceptable ways.

In order for a successful social skills treatment to account for the various needs of children, it is important to first instruct the child in skills necessary for social interaction, and then create and facilitate social opportunities for students to practice these skills with peers in naturalistic settings. In order for social skills treatments to be effective, both of these areas must be addressed and intervention maintenance should occur. For example, a child may be instructed in how to join a game in a small group, and then supported in joining a group of peers to play the game. Once the child has sufficiently shown the ability to interact with peers, clinicians or school personnel should be available to provide additional social coaching, as needed.

Key components: specific assessment to determine intervention targets. Flexible timeline for completion. Long-term investment from parents and schools to follow through and maintain social supports.

Active ingredients of sequence: 1) Priming a skill in young children using behavioral strategies, and then 2) Using more developmental and naturalistic strategies to help solidify the skill. (Example is the study by Kasari et al., 2006, in which brief discrete trial training was used prior to milieu play episodes to teach joint attention or play skills.) 3) Reassessing children's social needs through development, to determine the need for increased/decreased intensity and follow up.

A practical example of a sequential intervention approach is to break down skills needed in separate sets such as below:

1. *Instruct skill ➔ accepting the rules of a game and being a good winner/loser.*
2. *Priming activity ➔ practice game of handball in classroom, with group members. Positive feedback for turn-taking, and responding appropriately to winning/losing.*
3. *Supported activity ➔ with adult support, join recess game of handball with trained peers. Adult feedback, when positive skills are displayed, to all children involved.*
4. *Generalization ➔ children with ASDs are encouraged to join in a game, general adult supervision to ensure no children are isolated.*

Support Throughout the Life Course

Thus far, the issues this chapter has addressed are pertinent to early childhood and primary aged children. Unfortunately, the difficulty children with autism have in developing and maintaining positive peer relationships and friendships continues well into adulthood. Orsmond, Krauss, and Seltzer (2004) asked 235 parents about the peer relations of their adolescent and adult children with autism. Almost half reported no peer relationships at all. Likewise, Howlin and colleagues (2004) found that 56% of 68 adults with autism reported no friends or acquaintances. Additionally, school inclusion with typical age mates was not associated with having peer relationships. Thus, an individual's participation in an inclusive setting did not result in a greater chance of having a friend.

Some models to improve social competency in adolescents incorporate parents as part of the treatment (Laugeson, Frankel, Mogil, & Dillon, 2008). In the social skills program (PEERS) of Laugeson and colleagues, teenagers are instructed on positive and relevant social etiquette. For example, one session focuses on the differences in communication etiquette via e-mail versus the telephone. Additionally, teenagers in the group are encouraged to have social gatherings as homework. This aspect is aimed to improve generalization, as the groups are conducted in clinical settings. Concurrently, parents attend informational sessions instructing them on the best ways to support the social skill development in their teenager. After the intervention/parent sessions, teenagers and parents are briefed on what each covered. This aspect of simultaneous treatment of both the adolescent and their parents seems likely to influence long-term change.

Adolescents are a difficult group for which to design and implement effective social skills interventions. Research has indicated that adolescents with high functioning autism are aware of their difficulties in peer interactions. It stands to reason that their heightened awareness of their social status would result in increased sensitivity. This should be taken into account when developing interventions. Adolescents with ASDs were also found to experience higher levels of loneliness than their typical peers (Locke et al., 2010). Perhaps an effective approach to improving social skills for this age group would include activities that the adolescents naturally enjoy or are interested in. Project-based groups can teach social skills, teamwork, and cooperation, all while providing enrichment. Projects can also include community service activities. This can intensify the benefit of social skills programs for society. Not only are adolescents improving their skills, they are becoming more engaged with their peers, and visible and connected to their communities.

Conclusions

In the case of autism, no single intervention will suffice. If children are to build social competency, then intervention efforts must address the variability of the disorder itself. Given the success of interventions such as those by Barry et al. (2003) and Bauminger (2002), peer-mediated models are necessary to promote the generalization of social skills across different contexts of a child with autism's life. Additionally, both in the early joint attention and symbolic play interventions and adolescent social skills groups, parents and caregivers are a necessary component of successful intervention implementation. It is recommended to provide intervention efforts throughout the developmental trajectory, targeting different aspects of the core deficits of autism. Additionally, it is necessary to include all members of the child with autism's social network (e.g., parents, school, and community).

Child: Change begins with the child. The child is the primary target of any intervention, be it early communication or social skills and engagement. The most intense intervention efforts must be directed towards the child. In early childhood, interventions targeting joint attention and symbolic play skills can foster and support communication and language development. Once those abilities are adequately developed, social skills training programs in naturalistic settings can improve the child's behaviors that enable him or her to engage with peers. Through adolescence, the target of intervention must continue to build and develop these skills. Adolescents must be taught to functionally transfer early developed social competence into behaviors that allow them to interact with their peer group.

Family: Parents, family members, and anyone involved in the child's home life are an integral part of catalyzing and sustaining positive change. Parents are involved in implementing and supporting intervention directly in early childhood and indirectly in childhood through adolescence. For any intervention effects to be lasting, people in the child's home must continue to foster an environment that supports the child and his or her newly acquired skills. Improved communication, language, and social behaviors can improve family relationships. They can also reduce caregiver stress.

School: Once children have developed early competencies that have been supported in their home life, they can enter school with improved social abilities. These skills will allow them to fully benefit from inclusive opportunities. Additionally, interventions targeting social interactions, conducted in a school environment, increase the ability to generalize skills. Members of the school community must be supported to facilitate positive interactions

between peers, so that everyone in the school environment can grow as a result of the experience.

Community: There is less evidence for community involvement in the positive social development of children with autism. It stands to reason, however, that once these children are supported to become contributing members of society, communities will benefit. Additionally, any intervention efforts targeted toward adolescents can incorporate community service components. Thus, adolescents have a shared cause to work toward, and practice their social skills.

When conceptualizing and implementing social skills interventions, researchers and practitioners are urged to consider the child as embedded in a family, school, and community context. Within this guiding framework, changes can promote individual social competency and create environments that foster and support the continued growth of social skills. If we are to expect inclusion to be a successful practice, it is necessary to develop systems that facilitate positive inclusion opportunities and value the learning experience it provides.

This task is multifaceted. First, children with autism must be supported to develop adequate communicative skills to function at a level that allows them to interact with their peers. Once these skills are developed, they must then be fostered in ways that improve social interactions. Through targeted interventions, addressing the core deficits of autism throughout the developmental trajectory, children can acquire skills and the social competences necessary for positive interactions with their families and peers. Given the variability of autism spectrum disorders, interventions must be tailored to address all domains that affect social communication and functioning and also deliver specific support, contingent on the child's social profile. Targeted interventions, addressing different developmental periods throughout the life course, can be an effective way to improve outcomes and provide meaningful skills and opportunities for social engagement in school and life contexts.

References

American Psychological Association. (2000). *Diagnostic and statistical manual of mental disorders* (4th ed.). Washington, DC: APA.

Baron-Cohen, S., Tager-Flusberg, H., & Cohen, D. (1994). *Understanding other minds: Perspectives from autism.* London, UK: Oxford University.

Barry, T., Klinger, L., Lee, J., Palardy, N., Gilmore, T., & Bodin Douglas, S. (2002). Examining the effectiveness of an outpatient clinic-based social skills group for

high-functioning children with autism. *Journal of Autism and Developmental Disorders, 33*(6), 685-701.

Bauminger, N. (2002). The facilitation of social-emotional understanding and social interaction in high-functioning children with autism: Intervention outcomes. *Journal of Autism and Developmental Disorders, 32*(4), 283-298.

Bellini, S., Peters, J. K., Benner, L., & Hopf, A. (2007). A meta-analysis of school-based social skills interventions for children with autism spectrum disorders. *Remedial and Special Education, 28*(3), 153-162.

Buhrmester, D. (1990). Intimacy of friendship, interpersonal competence, and adjustment during preadolescence and adolescence. *Child Development, 61*(4), 1101-1111.

Burack, J., Root, R., & Zigler, E. (1997). Inclusive education for students with autism: Reviewing ideological, empirical, and community considerations. In D. J. Cohen & F. R. Volkmar (Eds.), *Handbook of autism and pervasive developmental disorders* (pp. 796-807). New York, NY: Wiley.

Capps, L., Sigman, M., & Yirmiya, N. (1996). Self-competence and emotional understanding in high-functioning children with autism. *Development and Psychopathology, 7,* 137-149.

Carr, E. G., & Darcy, M. (1990). Setting generality of peer modeling in children with autism. *Journal of Autism and Developmental Disorders, 20*(1), 45-59.

Education for All Handicapped Children Act of 1975, 20 U.S.C. § 612(5)(B).

Erikson, E. H. (1968). *Identity, youth and crisis.* New York, NY: Norton.

Gresham, F. (1986). Strategies for enhancing the social outcomes of mainstreaming: A necessary ingredient for success. In C. Meisel, *Mainstreaming handicapped children: Outcomes, controversies, and new directions* (pp. 193-218). Hillsdale, NJ: Erlbaum.

Guralnick, M. J. (1990). Social competence and early intervention. *Journal of Early Intervention, 14*(1), 3-14.

Gutstein, S., & Whitney, T. (2002). Asperger syndrome and the development of social competence. *Focus on Autism and Other Developmental Disabilities, 17*(3), 161-171.

Hobson, P. (2002).*The cradle of thought: Exploring the origins of thinking.* London: Macmillan.

Howlin, P., Goode, S., Hutton, J., & Rutter, M. (2004). Adult outcome for children with autism. *Journal of Child Psychology and Psychiatry, 45*(2), 212-229.

Individuals with Disabilities Education Act Amendments of 1997, 2004, 20 U.S.C. § 1400 *et seq.*

Kanner, L. (1943). Autistic disturbances of affective contact. *Nervous Child, 2,* 217-250.

Kasari, C., Locke, J., Gulsrud, A., & Rotheram-Fuller, E. (2011). Social networks and friendships at school: Comparing children with and without ASD. *Journal of Autism and Developmental Disorders*, 41, 533-544.

Kasari, C., Gulsrud, A., Wong, C., Kwon, S., & Locke, J. (2010). Randomized controlled caregiver mediated joint engagement intervention for toddlers with autism. *Journal of Autism and Developmental Disorders,40*(9),1045-1056.

Kasari, C., Paparella, T., Freeman, S., & Jahromi, L. (2008). Language outcome in autism: Randomized comparison of joint attention and play interventions. *Journal of Consulting and Clinical Psychology, 76*(1), 125-137.

Kasari, C., Freeman, S., & Paparella, T. (2006). Joint attention and symbolic play in young children with autism: A randomized controlled intervention study. *Journal of Child Psychology and Psychiatry, 47*(6), 611-620.

Kasari, C., Freeman, S., Bauminger, N., & Alkin, M. (1999). Parental perspectives on inclusion: Effects of autism and down syndrome. *Journal of Autism and Developmental Disorders, 29*(4), 297-305.

Laugeson, E., Frankel, F., Mogil, C., & Dillon, A. (2008). Parent-assisted social skills training to improve friendships in teens with autism spectrum disorders. *Journal of Autism and Developmental Disorders, 39*(4), 596-606.

Lawton, K., & Kasari, C. (2011). Brief report: Longitudinal improvements in the quality of joint attention in preschool children with autism. *Journal of Autism and Developmental Disorders, 42,* 307-312.

Lifter, K., Sulzer-Azaroff, B., Anderson, S., & Cowdery, G. E. (1993). Teaching play activities to preschool children with disabilities: The importance of developmental considerations. *Journal of Early Intervention, 17,* 139–159.

Locke, J., Ishijimia, E., Kasari, C., & London, N. (2010). Loneliness, friendship quality and the social networks of adolescents with high-functioning autism in an inclusive setting. *Journal of Research in Special Educational Needs, 10*(2), 74-81.

Lovaas, O.I. (1987). Behavioral treatment and normal educational and intellectual functioning in young autistic children. *Journal of Consulting and Clinical Psychology, 55,* 3-9.

McGee, G., Morrier, M., & Daily, T. (1999). An incidental teaching approach to early intervention for toddlers with autism. *Journal of the Association for Persons with Severe Handicaps, 24*(3), 133-146.

Miller, P., & Ingham, J. (1976). Friends, confidants, and symptoms. *Social Pyschiatry*, 11, 51-58.

Mundy, P., Hogan, A., & Doehring, P. (1996). *A preliminary manual for the abridged early social-communication scales (ESCS).* Coral Gables, FL: University of Miami. (Available from http://www.psy.miami.edu/ faculty/pmundy)

Mundy, P., Sigman, M., & Kasari, C. (1990). A longitudinal study of joint attention and language development in autistic children. *Journal of Autism & Developmental Disorders, 20,* 115-128.

No Child Left Behind (NCLB) Act of 2001, Pub. L. No. 107-110, § 115, Stat. 1425 (2002).

Ochs, E., Kremer-Sadlik, T., Solomon, O., & Sirota, K. G. (2001). Inclusion as social practice: Views of children with autism. *Social Development, 10*(3), 399-419.

Orsmond, G. I., Krauss, M. W., & Seltzer, M. M. (2004). Peer relationships and social and recreational activities among adolescents and adults with autism. *Journal of Autism and Developmental Disorders*, *34,* 245–56.

Pierce-Jordan, S., & Lifter, K. (2005). Interaction of social and play behaviors in preschoolers with and without pervasive developmental disorder. *Topics in Early Childhood Special Education, 25*(1) 34-47.

Rocha, M. L., Schreibman, L., & Stahmer, A. C. (2007). Effectiveness of training parents to teach joint attention in children with autism. *Journal of Early Intervention, 29,* 154–172.

Rogers, S. J. (2000). Interventions that facilitate socialization in children with autism. *Journal of Autism and Developmental Disorders. Special Issue: Treatments for People with Autism and Other Pervasive Developmental Disorders: Research Perspectives, 30*(5), 399-409.

Sale, P., & Carey, D. (1995). The sociometric status of students with disabilities in a full-inclusion school. *Exceptional Children,* 62, 6-19.

Sigman, M., & Ruskin, E. (1999). Continuity anad change in the social competence of children with autism, Down syndrome, and developmental delays. *Monographs of the Society for Research in Child Development*, *64,* 114.

Villa, R. A., Thousand, J. S., & Rosenberg, R. L. (1995). Creating heterogeneous schools: A systems change perspective. *Journal of Autism and Developmental Disorders, 37,* 1858-1868.

Wing, L., & Gould, J. (1979). Severe impairments of social interaction and associated abnormalities in children: Epidemiology and classification. *Journal of Autism and Developmental Disorders, 9*(1), 11-29.