CHAPTER 35

Supporting Inclusive Education

MEGAN P. MARTINS, SANDRA L. HARRIS, AND JAN S. HANDLEMAN

The research on how to support children with autism spectrum disorder (ASD) in inclusive educational settings has grown steadily over the past few decades. Educators are becoming increasingly adept at preparing individuals with ASD to enter into and thrive in inclusive environments, and evidence is emerging that children with ASD can profit from being in an inclusive setting from the preschool years through high school and even into postsecondary education settings. It is also known that effective inclusion requires considerable skill on the part of teachers and other service providers, and must be done with a carefully thought-out plan based on empirical support for the effectiveness of the teaching methods that are used. Further, individuals with ASD present with markedly different educational needs and there is no one-size-fits-all approach to inclusion. This chapter reviews the history of inclusion to date, considers some of the useful techniques for including the child of any age in an inclusive setting, and addresses the limits as well as the benefits of such inclusion.

The societal trend toward educational inclusion is the direct result of a broader social movement to decrease discrimination toward individuals with disabilities. Over 30 years ago, there began to be increasing dissatisfaction with the fact that individuals with developmental disabilities such as ASD were not offered the same opportunities as others to participate and learn in regular education or community environments. It was not uncommon for individuals to be subjected to living and learning in isolating, residential institutions and to be excluded from community classrooms, employment, and social opportunities. Fortunately, educator and community views toward inclusion have changed substantially, resulting in a sustaining trend toward inclusion.

One of the most significant events to occur in the United States to promote inclusion was the passing of the Individuals with Disabilities Education Act (IDEA) in 1975 (previously known as the Education of All Handicapped Children Act). IDEA was partially built on the premise that all children, regardless of disability, are entitled to receive educational services in the least restrictive environment feasible and should be included with peers to the maximum extent possible. While the legislation does not directly mandate inclusion for all students with significant disabilities, the intent of IDEA was to provide individuals with ASD and other disabilities increased opportunities to learn in the same settings that are offered to their typically developing peers. This trend toward

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inclusion has not proved to be a passing fad in education, but rather has been sustained by a number of factors including increased knowledge concerning effective intervention strategies for individuals with ASD, a shift in perspective about the positive impact that individuals with disabilities can have on society at large, and an increase in diagnosis for individuals with less significant developmental impairments. Based upon IDEA data from Fall 2011, over 80% of children with disabilities between the ages of 6 and 21 spend the majority of their time in a regular education class (U.S. Department of Education, Office of Special Education Programs, Data Accountability Center, 2011). The current IDEA data does not provide information specifically about children with ASD, but the same general trend is likely to exist in the population of students with ASD.

As this cultural and social movement has opened up more opportunities for inclusion, researchers have been working to meet the demand from educators hungry for information on how to make inclusion successful for learners with ASD. However, there have been few group outcome studies on inclusive practices and only a few studies involve children with autism spectrum disorders (Stahmer & Ingersoll, 2004; Strain & Bovey, 2011). However, the available research does support well-planned, thoughtful inclusion of individuals with ASD with their peers as an educational option worthy of consideration for a majority of students. While the social movement may still be ahead of the research data, the field is better equipped than ever to provide recommendations to parents and professionals about inclusive practices.

THE TODDLER AND PRESCHOOL YEARS

While outcome data on the benefits of inclusion for children with developmental disabilities is still quite limited, the strongest evidence in support of inclusion comes from research conducted with young children (Stahmer & Ingersoll, 2004; Strain & Bovey, 2011). Some of this evidence has come from research on the LEAP model (Learning Experiences and Alternative Programs for Preschoolers and Their Parents) that has continued for several decades. The current LEAP model is a fully inclusive learning model that integrates a number of empirically supported intervention procedures including peer-mediated interventions, errorless learning, prompting strategies such as time delay, incidental teaching, pivotal response training, and positive behavior support. Recently, Strain and Bovey (2011) described a randomized design with 28 inclusive preschool classrooms given 2 years of training and coaching to achieve fidelity in the LEAP model procedures, while 28 other classes got written material about the LEAP model, without the training and coaching. This randomized controlled trial was the first trial conducted entirely in inclusive education settings (Strain & Bovey, 2011). Most other studies evaluating the efficacy of interventions for ASD have provided the bulk of intervention in a home, clinic, or segregated classroom setting or have not had the opportunity to include a control group (e.g., Dawson et al., 2010; Sallows & Graupner, 2005). The 177 children in the classrooms that got the full intervention package and the 117 children in the comparison classrooms did not differ on pretreatment measures. Two years later, the children from the experimental group had higher scores than the comparison group on measures of cognition, language, and social skills, and lower scores for presence of problem behavior and core symptoms of ASD. The teachers in the experimental group achieved fidelity in implementing the LEAP program and reported a favorable view of the procedures they used. The authors found that the degree to which teachers implemented LEAP strategies to fidelity was associated with outcomes for children. This study highlights the strength of the LEAP model and the importance of providing direct training by experienced staff members as a crucial component of the intervention model.

Although they have employed less empirically rigorous designs, there are a handful of other studies that suggest that young children can benefit substantially from a comprehensive model of intervention conducted in an inclusive setting. McGee, Morrier, and Daly (1999) described the progress

of 28 children with ASD who had participated in the Toddler Center of the Walden Early Childhood Program. The Walden Early Childhood Program provides much of their intervention alongside programs for children with typical development. At the completion of the program, many of the children with ASD had made impressive gains with 82% of the children using spoken language and 71% having improved in ability to play in close proximity to other children. More recently, Stahmer, Akshoomoff, and Cunningham (2011) reported on the outcomes of 102 children who had attended the Children's Toddler School, a community inclusion program for 2-year-olds with ASD. Children made significant gains in developmental level, language, and adaptive behavior during their time in the program. After an average of only 8 months enrolled in the program, 31% of the children were demonstrating skills in the average range on standardized measures. Although both of these groups of researchers did not have opportunity to employ control groups, the outcomes reported are promising and provide greater evidence that young children may be served effectively in inclusive settings.

Some of the most useful research for educators interested in how to facilitate inclusion during the early years comes from the larger body of work employing rigorous single subject designs. These single-subject studies have identified a number of effective teaching strategies such as peer mediation and visual supports that are feasible for use in inclusive settings to address the social, communication, and behavioral needs of young children with ASD. Peer-mediated interventions involve the use of typically developing peers to support the social engagement of children with ASD or other disabilities. They are designed to build upon a peer's already developed abilities through the teaching of specific skills such as social overtures and play organizing (Odom & Strain, 1986). Peer mediation can play an important role in helping preschool-aged children with ASD who have limited speech, communicate with typical classmates by using an alternative communication devise (Trembath, Balandin, Togher, & Stancliffe, 2009). Ganz and Flores (2008) used theme based visual scripts for increasing interactions among preschool aged children with ASD and typically developing peers in small, theme-based, play-groups. Children with ASD who used these word and picture scripts increased their use of scripted phases, while unscripted phrases were variable across the participants. Another effective application of pictures as part of a script was reported by Murdock and Hobbs (2011), who used scripts to increase pretend play by children with HFASD who had relatively high verbal ability. The use of joint activity schedules has been found helpful for increasing peer engagement on the part of preschool age children with ASD (Betz, Higbee, & Reagon, 2008). These findings lend support to the idea of supporting typically developing peers from their earliest contact with children with ASD so they can have a sense of effectiveness in their interaction.

ENTERING ELEMENTARY SCHOOL

It is also possible to introduce peer mediation once children are in elementary school. For example, peer-training interventions have also been shown to impact social interactions between elementary school students and their peers with ASD in less structured settings, such as lunchtime and recess (Harper, Symon, & Frea, 2008; Owen-DeSchryver, Carr, Cale, & Blakeley-Smith, 2008). Harper, Symon, and Frea (2008) coached typically developing peers to use Pivotal Response Training to increase the recess play behaviors of children with ASD. An exciting finding was that these play behaviors were maintained over time, even after the discontinuation of the intervention for the peers. Owen-DeSchryver et al. (2008) taught peers how to successfully engage in social interactions with three identified students with ASD. Data collected during lunchtime and recess indicated that the peers who received training increased in social initiations toward the children with ASD and the students with ASD also increased in their number of social initiations and responses. The authors also found that untrained peers were more likely to initiate toward the children with ASD, suggesting that

peer-training interventions can have a significant impact on the larger social environment for a child. In a study of peer-mediated social skills training for 6- and 7-year-old children with ASD, Chung et al. (2007), used a multiple component intervention including peer-mediated intervention, video feedback, and positive reinforcement including a token system. They found their 12-week social skills group was helpful for three of four boys with ASD.

Another study with four elementary-school-aged children with ASD used concept mastery routines (Bulgren, Schumaker, & Deshler, 1988) to teach responding to a peer's question, initiating interactions with a peer, and reading and responding to a peer's facial expressions (Laushey, Heflin, Shippen, Alberto, & Fredrick, 2009). The teaching process involved an interaction between the learner and the teacher to determine the essential elements of the concept under study with an emphasis on creating a visual diagram. Teaching children the concepts related to the target behaviors increased their use of these skills in peer interactions. The impact of peer tutoring in which typically developing children take turns being the tutor was assessed for a 5-year-old boy with HFASD (Petursdottir, McComas, McMaster, & Horner, 2007). When academic peer tutoring was the focus, the target child showed no increase in social interactions outside of the tutoring sessions. However, when the target child and a peer tutored one another using play-related objects, there was a marked increase in free play social interactions.

Reiter and Vitani (2007) explored the extent to which fourth-grade typically developing peers who had been in the same class with two children with ASD for 3 years might experience "burnout" in their interactions with these children. They taught these youngsters to be effective mediators for their classmates with ASD. After the peers mastered these techniques, there was a reduction in reported indicators of burnout, including an improved attitude toward their classmates with ASD. As Strain and Bovey (2011) note, the effectiveness of peer-mediated intervention depends in part on the regular availability of trained peers and coaches.

Child-focused social skills instruction has also been the subject of careful study regarding impact on functioning in school settings. Stichter, O'Connor, Herzog, Lierheimer, and McGhee (2012) taught theory of mind, emotion recognition, and executive functioning skills to 20 children with HFASD, ages 6 to 10 years. Parents and teachers reported that the children made gains in fundamental social competencies including learning to understand facial expressions, sharing ideas, and taking turns in conversation. However measures of student performance, while suggesting there had been growth from pre- to posttreatment, did not reach statistical significance for most of the behaviors. This is consistent with other data suggesting that generalization of these types of social skills is particularly difficult for children with ASD. Recently, Kasari, Rotheram-Fuller, Locke, and Gulsrud (2012) reported on a randomized controlled trial of social skills interventions for elementary-age children with ASD in general education classrooms. Sixty children participated from 30 different schools. Children either received social skills interventions from a peer-mediated approach or from a child-assisted approach. The peer-mediated approach was superior to the individualized social skills on measures of social network salience, number of friendship nominations, teacher-reported social skills in the classroom, and decreased isolation on the playground. This suggests that incorporating peer-mediated interventions may be key to the success of social-skills interventions used by educational programs.

Self-management is another intervention technique that is known to be effective for increasing the independence of students with ASD and other disabilities. Self-management involves transferring the control of procedures designed to change or maintain one's own behavior from an instructor to the learner. An individual is generally taught to monitor his or her own behavior and record whether the behavior occurred or not. The individual is usually also in control of any reinforcement contingencies for desired behavior. Self-management procedures have been used with individuals with ASD and other disabilities to increase social and play skills,

improve on-task behavior, reduce undesired behaviors, and teach daily living skills (Koegel, Koegel, Hurley, & Frea, 1992; Newman, Tuntigian, Ryan, & Reinecke, 1997; Pierce & Schriebman, 1994; Stahmer & Schreibman, 1992). Koegel, Harrower, and Koegel (1999) demonstrated that two children with significant cognitive impairments improved in on-task behavior and experienced a reduction in disruptive behavior when they taught to use self-management procedures in mainstream educational classrooms. After the intervention, both target behaviors for both participants were within the range of behavior exhibited by typically developing children in the classroom. Self-management is a particularly appealing procedure for use in an inclusion setting as it requires very little effort on the part of a teacher after the instruction period. Parker and Kamps (2011) used self-monitoring of a task analysis along with social script prompting to teach two 9-year-old students with HFASD to engage in social activities including cooking, playing board games, and eating in a fast-food restaurant with typically developing peers. Some of the steps required the child to talk to a peer and provided scripted prompts. Peers were taught to use verbal or gestural prompts to move the child with ASD on to the next step if it did not occur spontaneously. This study demonstrated the potential benefits of combining effective intervention strategies.

The use of paraprofessionals in inclusive classrooms is widespread in general education classrooms, although there are limited data on the impact of paraprofessionals on improving inclusion outcomes. Young, Simpson, Myles, & Kamps (1997) examined the behaviors of three elementary-age students with ASD in a public school inclusive setting in relation to the activity and proximity of paraprofessionals. The authors found that the impact of paraprofessionals on classroom behaviors such as on-task behavior, in-seat behavior, inappropriate vocalizations, and social initiations was variable and unclear. Paraprofessionals also were reported to miss a number of opportunities to provide assistance to facilitate socialization and were reported to rely mostly on some prompting strategies that are not necessarily a good match for children with autism. The findings of this study strongly suggested that paraprofessionals must receive effective training in order to provide best outcomes and that the impact of inclusion with a paraprofessional who has not received ASD specific training is unknown. However, there are a number of studies that have indicated that paraprofessionals can learn to implement evidence-based strategies including behavioral supports, pivotal response treatment, social skills interventions, and social narratives (Hall, Grundon, Pope, & Romero, 2010; Mazurik-Charles & Stefanou, 2010; Quilty, 2007; Robinson, 2011). However, in many cases, paraprofessionals are not provided with the necessary training and can thus place additional strain on teachers who are already working hard to manage the numerous demands placed on them within the classroom and now have to direct an adult learner as well (Glashan, MacKay, & Grieve, 2004). Education programs should seek to provide paraprofessional staff with training in evidence-based practices specific to ASD, commit to ongoing training of staff, and support paraprofessional staff with ongoing quality supervision.

MOVING ON TO MIDDLE SCHOOL AND HIGH SCHOOL

The older children get, the more complex the challenges grow of providing effective inclusion in regular education classes. Inclusion at the preschool level seems to be quite "matter-of-fact" for very young children. But as children move into the elementary-school years and then into middle school and high school, the academic and interpersonal demands become increasingly difficult for the child with an ASD. Shattuck, Orsmond, Wagner, and Cooper (2011) studied a large U.S. national cohort of adolescents with a diagnosis of ASD, intellectual disability, or speech/language impairments. They found the teens with ASD were the least likely to see friends outside of school, get called by friends, or be invited to social activities. They note that in their ongoing research on adolescents with ASD that they found

no relationship between being included in a regular education classroom and having friendships (Shattuck et al., 2011).

An observational study of interactions of middle-school and high-school adolescents with ASD or intellectual disability was reported by Carter, Sisco, Brown, Brickham, and Al-Khabbaz (2008). The target children were observed in core academic and/or elective subject classrooms. Interactions with typically developing peers were most likely to occur in small group instructional settings, during elective courses, or when the target child was not receiving direct support from an adult. Observations in academic classrooms showed that almost a quarter of the target children went for a full class session without any peer interaction.

MacKay, Knott, and Dunlop (2007) used a group intervention to increase social understanding and interaction of teens with HFASD. The young people met in 90-minute after-school groups where the focus was on social and emotional perspective-taking, conversation, and friendship skills. Parents and children reported statistically significant gains in social skills on pre- to post-questionnaires. There were, however, no direct behavioral measures of social interactions with typically developing peers during the school day. Similarly, Stichter et al., 2010 explored improvements in social skills among young adolescents with HFASD. Their parents reported significant gains in social skills and executive functioning after group participation. There were no data collected on interactions between the participants and their typically developing peers in the classroom.

COLLEGE FOR THOSE WHO ARE READY

As a result of the increase in diagnosis observed in the past two decades and the increase in identification of individuals without co-occurring intellectual disabilities, more and more students with ASD are entering postsecondary educational settings. White, Ollendick, and Bray (2011) conducted a study aimed at identifying the needs of this growing population. At a single university, they estimated that between .7% and 1.9% of students would meet diagnostic criteria for an ASD. This finding confirms that students with ASD and related symptoms are not uncommon in college settings. Further, they found that students with ASD symptoms were more likely to report symptoms of social anxiety, depression, aggression, and hostility, and also reported less satisfaction in college and life overall. As colleges and universities are enrolling more and more students with ASD, an increase in systems of social support are clearly needed even for those who have been academically well-prepared for the demands of college.

Although there have been few well-researched programs of support for students with ASD enrolled in postsecondary settings, some researchers have proposed possible recommendations based upon what is currently known about students with ASD and strong cognitive abilities. VanBergeijk, Klin, and Volkmar (2008) recommended a number of possible considerations and accommodations. These include consideration of possible co-occurring mental-health conditions such as anxiety and depression, counseling supports, classroom modifications such as use of computers, tape recorders, or scribes, organizational assistance, modifications to testing, and social skills instruction specifically pertaining to topics such as privacy, sexuality, and dorm living. Complicating obtaining these accommodations is that as adolescents move into postsecondary settings, they are exiting the system of support mandated by IDEA. Their family may have become accustomed to those resources during the school years, and may not understand the need to teach their adolescent to advocate for him- or herself. Seeking support and accommodations in postsecondary settings requires greater self-disclosure and often greater self-advocacy.

A recent study by Gantman, Kapp, Orenski, and Laugeson (2012) used a RCT design to explore the benefits of social-skills training for high-functioning young adults enrolled in college. The participants reported less loneliness and showed a better understanding of social skills than did the comparison group. Their parents or other

caretakers described improvement in social skills, social responsiveness, empathy, and attendance at social gatherings sponsored by the UCLA PEERS for Young Adults Program, as well as invitations from others to social activities. This exciting finding holds promise that social skills instruction can be extended successfully into use with college-age young adults and will hopefully encourage other researchers to branch out into this important area of study.

VARIED OUTCOMES OF INCLUSION

Although there is consensus that there are clear benefits to some models of inclusion, there is also evidence that there are potential downsides and risks to inclusion of children with ASD. Much of this comes from descriptive and qualitative research on children who are included in public school general-education classrooms, indicating that being included in mainstream classes does not always have a positive impact on the child with ASD. Although some children have positive experiences, others are bullied and isolated. Chamberlain, Kasari, and Rotheram-Fuller (2007) studied the social engagement of 17 children with HFASD in inclusive classrooms from grades 2 through 5. Participating children and their classroom peers completed questionnaires about the social network in the classroom, identified their best friends, and completed a loneliness questionnaire. The children with ASD were less central in social networks, spent less time with the people whom they identified as best friends, and had fewer reciprocal friendship nominations than did comparison children in their classroom. They did not, however, report greater loneliness than the comparison children. In a follow-up study, Rotheram-Fuller, Kasari, Chamberlin, and Locke (2010) studied 79 children with ASD in general education early (K–1st), middle (2nd–3rd), and late (4th–5th) elementary school classrooms. Seventy-nine gender-matched peers also participated. All children completed social network surveys examining reciprocal friendships, peer rejection, peer acceptance, and social involvement. While not rejected by their peers, the children with ASD were less likely to be accepted. Peers were less likely to reciprocate the friendships of children with ASD than their matched peers across age groups. Close to half of the children with ASD were rated as involved in their regular education classroom networks, with involvement more likely to be present in the earlier elementary grades. Though some children were included, children with ASD were more likely to be isolated and peripheral to social relationships in the classroom. This relative isolation increased as the children got older (Rotheram-Fuller et al., 2010). Given that one of the primary motivations for including children with ASD in general education classrooms is to promote peer relationships, this finding is concerning and suggests that current widespead inclusion practices are not necessarily sufficient to involve children with ASD with their peers and do not work with all children. Little information was available concerning about what types of interventions were ongoing in the classrooms studied.

Several research studies have confirmed that children with ASD are at greater risk of experiencing teasing and bullying than their peers (Humphrey & Lewis, 2008; van Roekel, Scholte, & Didden, 2010). Further, it has been shown that children with less social impairment are more likely to experience bullying than other children with greater impairments (Rowley et al., 2012). This is concerning as the children who are most likely to be placed in full inclusion settings are the ones who are at greatest risk for bullying and teasing. Parents and students may be concerned about the increased risk of being a target for peers when a full inclusion setting is considered, especially as more evidence emerges that bullying can have significant long-term emotional and behavioral consequences (van Roekel et al., 2010). In a qualitative study of the experiences of students with ASD in secondary mainstream classes, Humphrey and Lewis (2008) learned that many of the young people in their study, although intellectually competent, had serious problems in social communication and reported feelings of isolation and experiences of bullying. They also said the noise, activity, and lack

of predictability in a secondary school was a source of stress.

Jones and Frederickson (2010) obtained behavioral ratings from the parents, teachers, and peers of 86 children with ASD to identify predictors of successful inclusion in mainstream classes in primary and secondary schools. Sociometric data showed that the children with ASD were less accepted by their peers and had higher social rejection ratings than a comparison sample of typically developing students. Cooperative behavior on the part of the student with ASD was a predictor of greater acceptance. Interestingly, low levels of prosocial behavior by the children with ASD were predictive of greater acceptance than were higher levels on this measure. It is possible that this trend is due to the fact that children are more likely to have empathy toward children with more apparent difficulties.

EDUCATOR AND FAMILY PERSPECTIVES

The attitudes of special education teachers, regular education teachers, school administrators, and the family are important to consider when planning for inclusive programming, as they can stall or facilitate the implementation of inclusive supports in a classroom environment (Odom & McEvoy, 1990). Educators and families may significantly differ in their views toward the benefits of inclusion or the criteria to be used to decide how and when inclusive opportunities should be provided. Much of what is known about different views toward inclusion comes from literature on children with a broader range of developmental and intellectual disabilities as research specific to autism is quite limited (Ferraioli & Harris, 2011). Thus, this review on perspectives on inclusion includes literature from those populations as well as literature specific to individuals with ASD.

Educator Perspectives

In an education environment that provides opportunities for inclusion, regular education and special education teachers ideally work together to create an optimal learning setting for their learners. However, regular education teachers and special education teachers may disagree in their views toward inclusion and may not always agree on the competencies necessary for entering a regular education setting (Hanrahan, Goodman, & Rapagna, 1990). A regular education teacher's perspective toward including a child with autism in their class is especially important as it is likely to predict the success of that child in their classroom. This is because it can impact the degree to which effective collaboration with a special education teacher or other professionals develops, and whether there is adherence to planned classroom accommodations. In addition, the teacher's behavior toward the child may set the stage for the attitudes of classroom peers toward the child.

Classroom teachers do tend to endorse mostly positive attitudes toward individuals with disabilities including individuals with intellectual disabilities or ASD (McDonald, Birnbrauer, & Swerissen, 1987; Robertson, Chamberlain, & Kasari, 2003). However, there are some known factors that may influence a teacher's attitudes. For example, professional experience with individuals with disabilities and education related to individuals with disabilities is known to moderate the magnitude of these attitudes (Ferraioli & Harris, 2011; McDonald et al., 1987; Stolber, Gettinger, & Goetz, 1996). Further, the perceived availability of supportive personnel with knowledge and experience with autism can impact a teacher's attitudes toward inclusion (Glashan et al., 2004). The degree to which challenging behaviors are present also may impact a teacher's perception, and regular education teachers are more likely to support the inclusion of a child who demonstrates fewer of these behaviors (Downing & Peckham-Hardin, 2007; Hanrahan et al., 1990). There are also some promising data suggesting that teachers rate the types of interventions that support the inclusion of a child in their classroom as satisfactory and requiring low effort (Johnson, McDonnell, Holzwarth, & Hunter, 2004).

Recent attention has also been given to the role of principals and other administrators, as

these educators in supervisory roles can exert a significant amount of influence on the culture of inclusion in a particular school setting. Principals also frequently play an important role in decisions around classroom placements and resource allocations for any given student. In one study conducted on the views of elementary school principals on inclusion for students with various disabilities, the authors reported substantial variation in principals' views (Avissar, Reiter, & Leyser, 2003). Some principals reported highly positive views toward inclusion while others revealed lower expectations for success. Avissar, Reiter, and Leyser (2003) then examined a number of background variables and found that the age of the principal, level of education, and amount of in-service training significantly impacted expectations for success. They also found a trend toward principals holding a belief that the most significant benefit to inclusion was a social one, rather than an academic one. Horrocks, White, and Roberts (2008) examined the attitudes of principals toward inclusion of children with ASD and their impact on educational placement. The authors concluded that principal attitudes toward inclusion did predict educational placement, with those principals who believed children with ASD can be successfully included more likely to recommend higher levels of inclusion. Factors that predicted positive attitudes toward inclusion for students with ASD in this population of principals included professional experience with children with ASD, more positive attitude toward inclusion in general, shorter tenure with the school district, and formal training in special education. These studies suggest some potential strategies for addressing attitudes about inclusion specifically, it is important to educate administrators (not just teachers) about autism and evidence-based inclusive practices.

Family Perspectives

Parents frequently serve as the most powerful advocate for a child's education placement but may also be ambivalent about where their child belongs on the continuum of inclusion opportunities. Overall, research has indicated that parents are mostly supportive of inclusion and of the interventions that promote success in inclusive environments (Kasari, Freeman, Bauminger, & Alkin, 1999; Whitaker, 2004). However, parents may also be the most concerned stakeholders about any hypothesized negative events such as teasing, bullying, or less time spent benefitting from highly individualized instruction.

This pattern is highlighted by a study conducted by Guralnick, Connor, and Hammond (1995), who interviewed parents of preschool aged children with disabilities about their views of inclusion. They found that parents were highly concerned about their child's possible social rejection but believed that their child's education setting was also valuable in helping their child establish peer relationships and friendships. Parents of children in inclusive settings reported that their child was more social and played more successfully and attributed this to the opportunities to interact with peers that are provided by an inclusive setting.

The nature of the disability, age of the child, experience with inclusion, and nature of available programs have also been found to play a role in how parents view inclusion for their own child (Barnard, Prior, & Potter, 2000; Flewitt & Nind, 2007; Kasari et al., 1999). Kasari et al. (1999) found that parents of children with ASD were more likely to encourage part-time inclusion while parents of children with Down syndrome were more likely to be supportive of full inclusion. In this sample, parents of younger children also tended to be more supportive of inclusion than those of older students. Flewitt and Nind (2007) reported some parents elect to support a combination of inclusive and segregated learning environments for their child. The authors suggested that this was related to some perceived advantages that exist in the inclusive setting, such as social skills gains and a more diverse experience, while also having concerns about the availability of sufficient specialist expertise and resources in the inclusive setting.

Another study has supported the notion that parental opinions of inclusion may be related to the types of ASD services their children can receive in a given setting (Barnard et al., 2000). A survey of

more than 1,000 families was conducted to learn about how families perceive inclusion and other educational opportunities for their children. The study revealed that parents of children with ASD in autism-specific programs were the most likely to be satisfied with their child's program, whether their children were in an inclusive setting or in a setting that did not provide ample inclusive opportunities. Further, parents of children in restrictive settings but with ASD supports were more satisfied than those of children within included settings without autism-specific supports. These findings suggest that staff training and availability of ASD specific supports are essential keys for success, regardless of setting, and that inclusion without supports is not recommended. This survey also found that, consistent with previous reports, parents of younger children were more likely to be satisfied with inclusion services than parents of older children.

Parents of typically developing children tend to lean toward being supportive of inclusion in classrooms, but appear to have a less positive view of inclusion than parents of children with disabilities (Peck, Staub, Gallucci, & Schwartz, 2004; Stolber et al., 1996). For example, Stolber et al. (1996) found that parents of typically developing children were less supportive of inclusion than parents of children with special needs. The amount of parental education and parental income were correlated with a more positive perception of inclusion in this sample. In another study, Peck et al. (2004) interviewed parents about their views of inclusion found mostly positive views and benefits reported for typically developing children in inclusive settings. Those parents who held less positive views reported concerns about behavior problems that may disrupt the classroom and concerns that teacher spends less time with their students because of the increased demands on them as a result of having a student with greater learning needs in their classroom.

CONCLUSION

Research on practices to support the successful inclusion of students with ASD from preschool to postsecondary settings has been steadily growing over the past few decades. There has long been good evidence that early experiences with well-planned inclusion, including peer-mediated learning, can be very helpful, especially for preschool aged children with ASD (e.g., Strain, 1983). However, the push for inclusion is driven in some cases by a powerful philosophical movement and more extensive high-quality research is needed to understand the long-term impact of inclusion practices. In general, data suggest that the plan of 'include and hope for the best' should not be recommended for students with ASD, as the authors of this chapter are not aware of any data indicating that inclusion without accompanying specialized interventions can lead to the same success for individuals with ASD as supported inclusion. For any individual child, decisions about inclusion and classroom placement must be based upon a number of factors, including the values and philosophy of family members and educators, the availability of evidence-based treatments and well-trained staff in various environments, and specific child factors such as targets for intervention and problematic behaviors (Delmolino & Harris, 2012). More research is needed on interventions that promote successful inclusion, especially for older adolescents and young adults.

CROSS-REFERENCES

Chapter 30 reviews comprehensive treatment models for ASD and Chapter 34 focuses on supporting mainstream success. Chapter 36 focuses on promoting recreational engagement and Chapter 37 on social skills interventions.

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