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Play Behaviors and Social Interactions of a Child Who Is Blind: In Theory and Practice

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Abstract: This case study describes the play behaviors and social interactions of a preschool-age girl who is blind and has no additional disabilities. The data obtained from the assessment protocol indicated that although the participant was developmentally at or above age level in most domains, she demonstrated limited play behaviors and compromised social interactions. The results reinforce the variability of social competence skills in young children with visual impairments.

The construct of play evolves continuously throughout early childhood. Initially, infants and toddlers demonstrate solitary play that evolves into parallel and then social play. Solitary and parallel play are both nonsocial, meaning that a child plays alone although in the presence of his or her peers. As play evolves from nonsocial to social, it is critical for children to be able to initiate and maintain interactions with their peers (Brownell, 1986; Guralnick, 1999b; Rubin & Coplan, 1992). Social play requires that children demonstrate strategies to gain entry into peer groups, resolve conflicts, and maintain interactions with other children.

Preschool-age children with disabilities often have difficulty engaging in positive social interactions. They are typically unable to demonstrate peer-related social competence and, as a result, engage in more solitary play than do their typical peers (Guralnick, Connor, Hammond, Gottman, & Kinnish, 1996a,

1996b; McConnell & Odom, 1999). Studies have found that children who are visually impaired (that is, are blind or have low vision) do not display a full range of play behaviors and demonstrate compromised social interactions (Rettig, 1994; Sacks, Kekelis, & Gaylord-Ross, 1992; Warren, 1984). This report of a case study describes the play behaviors and social interactions of a preschool-age child who is blind and has no additional disabilities.

Review of the literature

Children with disabilities

Children with disabilities receive fewer positive responses to their social bids or attempts to engage in social interactions and, as a result, demonstrate less interest in their peers, which makes them more prone to social isolation (Guralnick et al., 1996a, 1996b; Guralnick & Groom, 1987; Kopp, Baker, & Brown, 1992; McConnell & Odom, 1999; Odom, Zercher, Li, Marquart, & Sandall, 1998). In addition, they are rarely sought out as resources by their peers, infrequently serve as role models, and are the least preferred play partners of typical children (M. Brown & Gordon, 1987; Guralnick & Groom, 1987). Young children with disabilities are likely to develop an unusual pattern of peer-related social behaviors that, if left unaltered, can lead to later difficulty with adjustment (Guralnick & Groom, 1987; Parker & Asher, 1987).

Children who are visually impaired

Studies have indicated that children who are visually impaired demonstrate play behaviors that are predominantly exploratory in nature. These children engage less frequently in manipulative play, or the functional use of toys, and demonstrate more stereotypical behavior during play (Adelson & Fraiberg, 1974;

Parsons, 1986; Rettig, 1994; Sacks et al., 1992; Skellenger & Hill, 1994; Troster & Brambring, 1994; Warren, 1984). In addition, they infrequently engage in symbolic, highly imaginative, or role play and spend more time in solitary play or interacting with adults than with their sighted peers (Adelson & Fraiberg, 1974; Anderson, Dunlea, & Kekelis, 1984; Anderson & Kekelis, 1985; Erwin, 1993; Parsons, 1986; Rettig, 1994; Sacks et al., 1992; Schneekloth, 1989; Skellenger & Hill, 1994; Troster & Brambring, 1993, 1994; Warren, 1984). These limitations may be due to their inability to see how other children gain entry to play groups or sustain participation in group interactions. Hoben and Lindstrom (1980) found that visually impaired students initiated and responded less frequently to interactions that were initiated by their classmates than did their sighted peers. Sacks et al. (1992) observed that these children are less likely to respond to their peers' interests or to offer compliments to other children.

MacCuspie (1992, 1996) found that children who were visually impaired were inclined to have fewer friends and sometimes confused "assigned school buddies or helpers" with true friends. Jones and Chiba (1985) discovered that these children were rejected by their classmates more than were other groups of disabled students. In peer sociometric measures, they were rated as "popular" by students who were identified as "unpopular" by their peers (Jones, Lavine, & Shell, 1972). As a result, peer-related social interactions are often severely compromised in children with visual impairments. Thus, social play may give rise to feelings of frustration, rather than self-efficacy and independence, which characterize the social experience of typical children.

Inclusion

A founding principle of inclusion is to give children with special needs equal opportunities to participate fully in regular education

classrooms with children who are not disabled. However, studies have shown that for some students with special needs, placement in regular education classrooms without appropriate social supports has resulted in social isolation and, ultimately, a more restrictive environment (Gresham, 1981; Sacks et al., 1992). Therefore, classroom teachers need to make the development of social competence a priority for children with special needs. Efforts to include students with special needs are most effective when teachers are actively involved in assessing the students and helping them acquire appropriate social skills. It is critical for children who are visually impaired to be taught the social skills that are necessary to interact effectively with their peers. It is also important that the children's ability to implement these skills successfully is carefully monitored (Kekelis & Sacks, 1988; Sacks et al., 1992).

Methodology

This article presents a case study of the play behaviors and social interactions of a girl in preschool who is blind and has no additional disabilities. The evaluation methods included developmental and adaptive assessments, structured play observations (during "free play" in the classroom, day care, and home), and interviews (with parents, peers, teachers, and caregivers). Gathering data from multiple sources and through varied methods provides a comprehensive picture of a child's social competence, including the type of play (solitary, parallel, group, and so forth) and the quality and efficacy of social interactions (McConnell & Odom, 1999; McFall, 1982; Pogrund & Fazzi, 2002; Tremblay, Strain, Hendrickson, & Shores, 1981).

The participant

The participant was an African American-Hispanic girl aged 4 years, 6 months, who was blind, as a result of Peter's anomaly

with secondary glaucoma, and had no neurological or physical handicaps. She had severely reduced vision in her left eye (OS), and no vision in her right eye (OD). She held items within two inches of her left eye (nasally) for viewing and was unable to track identified playmates or adults beyond arm's reach. Although she executed routes to desired objectives within familiar environments indoors and outdoors, she was unable to explore her surroundings visually. A precane device had been introduced; however, the participant did not require it for travel within familiar environments and only utilized it in unfamiliar environments during instruction periods.

The participant was admitted to early intervention services at the age of 4 months. I am a certified teacher of students with visual impairments and a licensed orientation and mobility instructor and have served in that capacity with her since she was 6 months old. The girl received direct vision services on a weekly basis for the duration of her early intervention services. In addition, she participated regularly in a local "gymboree" program that provided structured motor and social opportunities. Most recently, she was enrolled in group swim lessons, a Brownie troop, and Suzuki piano lessons. At age 3, she began to attend an inclusive preschool program. I have continued to provide vision services at the rate of three (two-hour) sessions per week.

Settings

Preschool

The participant attended an independent preschool program half days (from 8:30 a.m. to 11:30 a.m.) five days per week. The class consisted of 18 4-year-old children (7 boys and 11 girls), and the student-to-teacher ratio was 9:1. The two teachers were both experienced, holding advanced degrees in early childhood education and early childhood special education. The children in

the class were diverse with regard to developmental level, special needs, and ethnicity and race. Three of them were familiar to the participant from the previous school year.

The preschool classroom was arranged for solitary and small- and large-group activities. It included a fine motor area with beads and puzzles, a light table with related materials, a fully equipped art area with easels, a reading nook (with braille adapted books), a writing center (including materials for producing braille), and a housekeeping area. The daily schedule included free-play activities; circle time; choice time; snack time; and then either a motor, library, art, or music activity.

As part of their preschool curriculum, the children were exposed to responsive, age-appropriate classroom discussions that addressed the concept of disability. The teachers responded to the children's questions about visual impairment, and the participant was encouraged to describe her visual limitations to her peers. Although I facilitated the participant's participation in classroom activities and provided instruction in compensatory skill areas, I took care to include the participant's sighted classmates in most activities.

Day care

To extend her social opportunities, her parents enrolled the participant in a five-day-a-week community after-school day care program from 11:30 a.m. to 4:00 p.m., where she had access to an additional cohort of peers who ranged in age from 2 to 8. This program was organized around activity centers (such as housekeeping, building, and fine-motor activities) with a variety of manipulatives, board games, and developmentally appropriate toys.

Home

The participant resides with both parents (she has no siblings) in a single-family home. The family lives in close proximity to her grandparents, aunts, uncles, and cousins of various ages. Play observations in the home took place in the family room, where many of her toys are located. In addition to traditional family-room furniture, there are two boxes and a bookcase that house an ample variety of developmentally appropriate toys, as well as a "play kitchen," a small table, and chairs.

Instrumentation

Developmental assessment

The Battelle Developmental Inventory (BDI; Newborg, Stock, Wnek, Guidibaldi, & Svinicki, 1988) is a standardized, norm-referenced, individually administered assessment battery of key developmental skills in the personal or social, adaptive, motor, communication, and cognitive domains. Although the normative sample did not include children with visual impairments, it was selected for this research because it allows for adaptive administration and scoring procedures for children with impairments. (It should be noted that a revision of the BDI, the BDI-2, was in publication at the time of this research, but was not yet available for public use.)

The Oregon Project for Visually Impaired and Blind Preschool Children (OR; D. Brown, Simmons, & Methvin, 1991) was also administered. It is a criterion-referenced instrument that was specifically developed for young children with visual impairments. It is not intended to provide a precise developmental age score; rather, it provides estimates of age-functioning levels in each of eight domains: cognitive, language, socialization, self-help, fine motor, gross motor, vision, and compensatory skills. The skills in each domain are developmentally sequenced and arranged in age categories. All major skills, including the

prerequisite skills for orientation and mobility and braille, are included.

Adaptive behavior assessment

The participant's preschool classroom teachers served as collective respondents for assessing the participant's adaptive behavior on the Vineland Adaptive Behavior Scales (VABS) classroom edition (Sparrow, Balla, & Cicchetti, 1983). The VABS includes 244 items that assess adaptive behavior in the classroom. It was designed to assess personal and social functioning and is organized around four behavioral domains: communication (receptive, expressive, and written), daily living skills (personal, domestic, and community), socialization (interpersonal relationships, play and leisure time, and coping skills), and motor skills (gross and fine). The VABS provides for percentile ranks and stanines (for the domain and composite scores), adaptive levels (by percentile groups), and age equivalents (by raw score conversions). The "adaptive behavior composite" summarizes the child's performance in all four domains. It should be noted that the normative sample for the VABS did not include children with visual impairments.

Structured play observations

The participant was observed during free play in the preschool (60 minutes), day care (40 minutes), and home (20 minutes) settings for a total of 120 minutes (10 minutes per session), over a two-week period. Observations were recorded in 10 1-minute intervals. The observations were analyzed using the Play Observation Scale (POS; Rubin, 2001) and the Individual Social Behavior Scale (ISBS; Guralnick & Groom, 1987). The POS is a measure of social participation and cognitive play. It has proved useful in determining age and gender differences in children's play, socioeconomic status differences in play, effects of the

ecological setting of play, individual differences in play, and the social contexts within which the various forms of cognitive play are distributed. Researchers have also used the POS in studies of children with developmental and learning disabilities.

The instrument provides a framework for coding play and nonplay behavior. The cognitive play categories (functional, constructive, dramatic, and games with rules) are nested within the social play categories (solitary, parallel, and group) (Rubin, 2001). It is recommended that behavior be observed in brief intervals (10 seconds to 1 minute), followed by time for coding (to be kept as close to 5 seconds as possible). An Observation Coding Sheet is provided, on which the observer records the child's predominant activity during the allotted time. The instrument provides a means to record the most predominant behavior that is observed during the interval. It is suggested that to obtain a valid measure of the child's general play styles, no more than 5 minutes of behavior should be recorded on any given day, but that a minimum of 15 minutes of POS data should be gathered.

The ISBS is a measure of peer-related social behaviors that was developed by Guralnick and Groom (1987) as an adaptation of the earlier work by White and Watts (1973). It provides a framework for identifying and coding peer interactions. Observers record the occurrence of individual social behaviors, such as joins peers in a specific activity, expresses hostility toward peers, leads in peer activities, follows a peer's lead, refuses to follow the lead of a peer, use of a peer and the participant as a resource, takes an unoffered object, defends property, attention-seeking behavior of peer and participant, and efforts of a peer and the participant to seek agreement. It is recommended that a maximum of 10 minutes of behavior be observed in one day in short intervals (10 seconds to 1 minute). The ISBS provides a series of codes with associated behaviors. The observer is directed to indicate (using

the codes) all the behaviors that are observed during the set interval on a recording sheet. The instrument provides for the recording of the range and frequency of social interaction behaviors with peers.

I developed a single, "blended" coding sheet, divided to provide for recording in 10 1-minute intervals. Using a stopwatch, I timed the intervals, observing and then recording the predominant play or nonplay behavior (as indicated by the POS) and all the peer interaction behaviors (as indicated by the ISBS) that I observed. The recording time between intervals ranged from 5 to 15 seconds.

In this study, I used a modified version of the observation schedule (60 minutes of "free-play" over a two-week period in 1-minute intervals) and observational instrumentation (POS and ISBS), used by Guralnick, Hammond, and Connor (2003) and Guralnick et al. (1996a). Those studies described the play behavior and social interactions of young children with developmental delays. It should be noted that in those studies, observations were conducted in the preschool settings only. This study expanded the settings in which observation took place to include the day care and home settings.

Interviews

Interviews were conducted with the participant's parents, teachers, and day care provider, and narrative notes of the interviews were recorded. In addition, a sociometric peer rating scale was collected from the classmates. On a 3-point Likert rating scale, the children were asked to sort Polaroid photographs of their classmates into three boxes (3 = like to play with all the time, 2 = like to play with most of the time, and 1 = do not like to play with). Sociometric ratings were calculated by determining the mean ratings of individual children, subgroups of boys and girls, and the class overall (McConnell & Odom, 1999).

Limitations

There are several limitations to the study. Given the nature of the single-case design, the generalizability of the results of this study may be limited. Furthermore, the instrumentation included the use of the BDI (Newborg et al., 1988) and the VABS (Sparrow et al., 1983), neither of which included visually impaired children in its normative sample. In addition, all the data collection and coding were conducted by a single individual, thereby not providing for interrater reliability.

Data Analysis

Developmental and adaptive assessment measures were administered and scored. Structured play observations were scheduled and simultaneously coded using the ISBS and the POS. The ISBS and the POS are designed to facilitate coding of the frequency of behaviors. Open-ended interviews were then conducted with the participant's preschool teachers, day care provider, and parents. The notes of those interviews were analyzed for trends within the narratives. A sociometric peer rating scale was collected from the classmates, on an individual basis, outside the classroom setting. The analysis of the data included primarily descriptive statistics (frequencies, percentages, means, and standard deviations).

Results

Developmental assessment

The BDI (Newborg et al., 1988), and the OR (D. Brown et al., 1991) were used for the developmental assessment. Table 1 presents a summary of the domain scores attained by the child on the BDI, which is a norm-referenced instrument that provides raw scores, percentile ranks, *z*-scores, *t*-scores, and age equivalents.

Table 2 presents a summary of the participant's performance on the OR, which is a criterion-referenced instrument that provides "estimated age function levels" only. The results are described in terms of age-functioning levels.

The participant demonstrated skills at or above her age level in the cognitive, gross motor, and communication domains in both the BDI and the OR (see Tables 1 and 2), as well as in the receptive and expressive subdomains of the BDI. The child demonstrated a delay in the fine motor domain on both instruments (see Tables 1 and 2). In the fine motor domain of the BDI, she was unable to demonstrate skills such as folding paper, copying lines and shapes, and cutting on a line with scissors. The OR identifies several of these skills as typically delayed in children who are visually impaired.

Adaptive behavior assessment

Table 3 presents a summary of the scores on the VABS classroom edition (Sparrow et al., 1983). The participant scored below her chronological age level in the socialization domain, with moderately low functioning in each of the subdomains of interpersonal relationships, play, and personal and coping skills.

Play-based observations

The participant was observed during free play in the preschool (60 minutes), day care (40 minutes), and home (20 minutes) settings for a total of 120 minutes (10 minutes at each session), over a two-week period. Observations were recorded in 10 1-minute intervals. The observations were coded using the POS (Rubin, 2001), during which the predominant play activity that was observed was recorded. In addition, the frequency and type of the interactions with peers were coded using the ISBS (Guralnick & Groom, 1987).

Preschool.

In the classroom setting, the participant spent 50% of the total time in solitary play while engaged in exploratory activities. For example, she sat away from her peers, examining toys visually (holding each one up to her left eye, examining it, putting it down, and then picking up another one). She simultaneously engaged in private speech, developing elaborate stories that included both fictional and nonfictional characters. During this time, she did not respond to her classmates' attempts to gain her attention or engage her. She spent approximately 20% of the total time in parallel play, engaged in constructive activities. She played independently, at the block center or the fine-motor area, in proximity to other children and aware of them (occasionally turning to listen to their conversations and smiling when something humorous was said) but had no direct interaction with them. She spent 20% of the total time in child-initiated and child-monitored group play, engaged in functional motor activities on the tire swing, where she was verbally interactive and took turns pushing the other children.

Day care.

In the day care setting, the participant spent approximately 50% of the total time in solitary play, engaged in an exploratory activity (visually examining small manipulatives while engaged in private speech). She spent just over 25% of the time observed in parallel play, engaged in constructive activities (assembling puzzles) and 25% of the time observed in group play, engaged in a dramatic activity. For example, she and a peer arranged two chairs side by side and pretended to pilot an airplane traveling to various cities and developed a complex plot on which to base their activities.

Home.

In the home setting, the participant engaged in solitary play only, since no other children were present. During one of the sessions, she was engaged in constructive play (assembling Duplo building blocks), and during the other session, she engaged in dramatic play (using dolls to develop a scenario that included a princess and a castle, with the landing of a stairway as a stage).

An examination of specific interactions with peers yielded some interesting patterns of behavior (see Figure 1). The participant did not lead or follow the lead of peers (indirectly) in either the classroom or day care settings. Although she did not actively refuse to follow the lead of her peers, she did not respond to their indirect attempts to include her. In addition, she did not use her peers as a resource (as a means of obtaining information or help) and frequently failed to respond to their attempts to use her as a resource. Similarly, she did not seek agreement from her peers and frequently failed to respond to their efforts to seek agreement from her. While she sought the attention of peers in both settings (by attempting to show them a toy or asking a question), she frequently failed to respond to their attention-seeking behavior.

Interviews

Interviews were conducted with the child's parents, teachers, day care provider, and classmates to obtain additional qualitative information on her play behaviors and social interactions. When asked about the participant's interactions with other children in the class, the preschool teacher said:

> She almost never attempts to initiate interactions with other children. She will ask them, "What's your name?" or "Who are you?" and when the other children respond, she doesn't attempt to engage them in continued conversation. When she participates in conversation, she is rarely the one to terminate the interaction. The other children usually go away or loose interest.

When asked about the frequency and form of play that the child engages in, the teacher replied, "She plays alone mostly or next to other children, but rarely in cooperative play." When asked what types of toys and play equipment the participant usually selects, she responded, "Puzzles, but not to assemble, mostly to look at … clay … blocks. The block area is her favorite activity." When asked if the child offers toys to her classmates as a means of gaining their attention or access to play groups, she responded, "She will share if asked, but she never offers toys otherwise."

When the day care provider was asked what toys and materials the participant enjoys most, she responded, "Blocks and floor puzzles. She'll stick with an activity for a long time. She chooses the same toys and gets upset if you tell her to choose something else." When asked about the child's frequency and form of play, the day care provider stated, "She prefers to play alone mostly. She will play next to other children, but other than [child's name], she doesn't really play 'with' the other children." She also noted that the participant

> prefers adults. She'll try to engage adults more than children. She'll ask you questions or hold your hand in order to get and keep your attention. She doesn't do that with the children. In fact, until recently, if she wanted a child to go to a certain play area with her, she would grab the child's arm and try to drag the child with her… . Other children try to baby her--she doesn't like that.

The interviews with the peers took the form of a sociometric peer rating scale. The children were asked to sort photographs of their classmates into three categories: like to play with all the time, like to play with most of the time, and do not like to play with. As is shown in Table 4, the mean of the participant's peer ratings was 2.00. Although this mean rating was less than that of the class mean, it was not the least of the scores, since it was greater than that of one classmate (Boy 6) and identical to that of two classmates (Girl 5 and Boy 7). The mean ratings of the remaining

six boys and nine girls were greater than that of the participant. Table 4 presents a summary of the rating responses of the other children with regard to the participant.

Discussion

The literature has shown that delays in the language, motor, or cognitive domains can have a direct impact on a child's social competence (Guralnick, 1990; Guralnick, 1999a; Rettig, 1994). However, the participant in this study demonstrated skills that were at or above her age level in these areas, with only subtle delays in fine motor skills. Nor did she exhibit any stereotypic or "negative behaviors," such as anxiety (crying or whining), hovering, aggression (antagonistic behavior), or excessive rough-and-tumble play that can have a detrimental effect on social interactions (Rubin, 2001). Yet, she demonstrated limited play behaviors and compromised social interactions.

The results of this study support the findings of previous research (Erwin, 1993; Rettig, 1994; Skellenger & Hill, 1994; Troster & Brambring, 1993, 1994; Warren, 1984). The participant demonstrated predominantly solitary play behavior. She spent most of the total time that she was observed engaged in nonsocial play and only 20% of the time in social play. According to the categories of nonsocial play identified by Guralnick et al. (2003), the participant spent half the time engaged in solitary passive play (in which she chose to play alone) and approximately one-third of the time engaged in reticent play (she was attentive to the actions and conversations of her peers but made no attempt to join them). She reportedly preferred interaction with adults over interaction with her peers, a consequence of which may be a "self-imposed" social isolation from peers. However, contrary to the literature, the participant frequently engaged in highly imaginative role play (whether alone or with others).

Similarly, although the participant frequently failed to respond to the advances of her peers, the peers continued to seek her attention. No instances of solitary active play (showing an interest in peers but being rejected or ignored by them) was recorded. These results contradict those of MacCuspie (1992, 1996) and Jones and Chiba (1985), who found that school-aged children with visual impairments were less frequently sought out and were even rejected by their peers. It should be noted that the participant's failure to respond to her peers' advances translated into missed opportunities to interact. Over time, it may lead to a reduced number of social bids from her peers, thus reducing the likelihood of her peers responding to her bids favorably.

As was mentioned earlier, Jones et al. (1972) found that children with visual impairments were rated as "popular" by students who were identified as "unpopular" by their peers. This was not necessarily the case in this study. A summary of the participant's sociometric peer ratings (see Table 4) indicated that two of the four classmates who identified the participant as someone they like to play with all the time had mean peer ratings that were equal to or greater than the class mean rating (2.176). Of her 17 classmates, 9 indicated that the participant was someone they like to play with most of the time, and only 4 indicated that she was someone they do not like to play with at all. It appears that even though the participant frequently failed to respond to the advances of her classmates and had difficulty sustaining interactions with them, she was identified by all but 4 of her 17 classmates as someone they liked to play with all or most of the time.

The participant's difficulty initiating and sustaining interactions with her peers was a major finding of this study. This difficulty may be attributed, in part, to an inability to make use of the visual-social cues of her peers. The participant was unable to model the strategies that are necessary for gaining entry into already-formed dyads and triads or to sustain participation in group interactions.

As a result, most of her interactions were brief and were terminated by the other children. The participant's difficulty sustaining interactions with peers may provide insight into why she chose solitary and parallel play more frequently than group play and did not engage in games with rules (that require reciprocal skills similar to active conversation).

The participant's immediate need is to acquire skills to facilitate her successful participation in group interactions. The literature has indicated that children who are unfamiliar with each other require less developed "entry skills" to join in ongoing activities. As children become more acquainted with one another, increasingly sophisticated entry skills are required (Coplan, Gavinski-Molina, Lagace-Seguin, & Wichmann, 2001; Coplan & Rubin, 1998; Coplan, Rubin, Fox, Calkins, & Stewart, 1994; Guralnick & Groom, 1987; Guralnick et al., 2003). This finding suggests that children with disabilities, who have difficulty establishing social interactions with their typical peers, are unlikely to be able to do so over time without direct intervention. It is interesting that the preschool teacher did not interpret the child's approaching a peer to ask "Who are you?" as having initiated an interaction, since the participant did not appear to make an attempt to continue the conversation. This finding may indicate the need to provide teachers with information on how to interpret the subtle modes of communication that children who are visually impaired often depend on. It is likely that by this question, the participant was attempting to initiate conversation, but was unable to maintain the interaction beyond the initial exchange.

Implications for the field

The development of social competence must be a priority for children who are visually impaired, even those who appear to be developing typically. The children's play behaviors and social

interactions should be assessed, and a structured plan of intervention should be provided. Professionals in the field must identify strategies that work and provide consistent, long-term support to children with visual impairments because research has indicated that short-term solutions are rarely effective (Sacks et al., 1992).

It is important that social skills intervention be implemented as early as possible before atypical patterns develop. To support the social development of young children who are visually impaired, teachers, parents and other providers of care, and peers need information on how to interpret behavioral cues and recognize the children's attempts to interact. It is essential to provide visually impaired children with a repertoire of social skills that facilitate their entry into social groups and to prepare them to sustain interactions. These skills should be introduced in the early preschool years and as soon as new groups of children are established with a continued emphasis on more developed entry skills as children become more closely acquainted.

Simply including children with visual impairments in typical settings is not enough to ensure that they become full members of the classroom or day care community. Even in the highest-quality environments with supportive professionals, educators must remain sensitive to the social challenges of children who are visually impaired, or their inclusion in typical environments can result in reduced social opportunities and isolation.

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