

Peer Relationships and the Mental Health of Young Children with Intellectual Delays

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Abstract Available evidence indicates that a substantial majority of young children with intellectual delays exhibit special problems in forming peer relationships and developing friendships. This increased social isolation from peers poses a considerable threat to their mental health in both the short and long term. This problem is related to but extends far beyond expected difficulties based on the increased level of behavior disorders evident for children with intellectual delays. Contemporary evidence suggests that children's peer-related social competence based on both emotion-regulation and social-information processes contributes to their peer relationship difficulties. A number of practice and policy suggestions are outlined to address this critical problem.

Keywords: mental health, peer relations, promoting peer competence

A central concern in the field of intellectual disabilities has been the co-occurrence of intellectual and mental health problems. This devastating combination dramatically impairs the psychological well-being and quality of life of those individuals affected. Among the effects are substantial restrictions imposed on many of life's activities and severely strained social relationships. Increased caregiver stress is common as well. Moreover, service systems grapple with the diagnostic and treatment complexities associated with this "dual diagnosis" population, often failing to both detect and properly treat behavioral and psychiatric disabilities (Moss, 2001). The magnitude of this problem is considerable, with conservative estimates indicating that approximately 25–35% of children and adults with intellectual disabilities manifest co-occurring significant behavioral problems or diagnosed psychiatric disorders (Borthwick-Duffy, 1994; Stromme & Diseth, 2000; Wallander, Koot, & Dekker, 2003). These problems range widely and include attentional and thought disorders, as well as the entire range of externalizing (e.g., conduct disorders) and internalizing (e.g., depression, social withdrawal) difficulties.

Recent research using well-established measures has revealed that many of these behavioral problems emerge in various forms and are detectable even during the preschool years (3–5 years olds). In general, young children with intellectual delays (IQ

range 30–85) exhibit a range of internalizing and externalizing disorders to a much greater extent than a comparable group of children without delays, with approximately 25% of children with delays meeting criteria indicating a significant clinical concern (Baker, Blacher, Crnic, & Edelbrock, 2002; Baker et al., 2003). Stability of behavior problems between 3 and 4 years of age was also evident (Baker et al., 2003).

These behavior problems of young children with intellectual delays produce many of the same adverse effects found for older individuals. In particular, caregiver stress increases and, under the proper circumstances, can lead to a transactional process exacerbating both stress and behavior problems (Baker et al., 2003; Crnic, Hoffman, Gaze, & Edelbrock, 2004; Gallimore, Keogh, & Bernheimer 1999; Sameroff & Fiese, 2000). In addition, both parents and children often find themselves becoming more and more isolated from community activities and from individuals in their family and community (see Baker et al., 2003; Guralnick, 1997). Of importance, as described below, from the children's perspective this social isolation extends to relationships with their peers in a variety of forms.

For typically developing children, the preschool years are generally a period of rapid growth in the development of peer relationships and friendships (Howes, 1988; Rubin, Coplan, Nelson, Cheah, & Lagacé-Séguin, 1999). Relationships with peers in particular hold considerable developmental significance, influencing domains that include the socialization of aggression, the development of prosocial behaviors in general, and the formation of self-concepts (e.g., Bates, 1975; Garvey, 1986; Howes, 1988). These same issues are also highly relevant to young children with intellectual delays, as the developmental pathways, processes, and significance are likely to be similar to those of typically developing children (Guralnick, 1999a). Clearly, experiencing social isolation

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from peers during the preschool years as a consequence of behavior problems is likely to place any child on a developmental trajectory that further heightens the risk of mental health difficulties emerging over time (Parker & Asher, 1987; Rubin, 1993). But, as presented later, children with intellectual delays confront even greater problems with respect to social isolation from their peers, resulting in an even greater threat to their long-term mental health. It is this larger problem, one extending well beyond children's behavioral difficulties, that is the focus of this paper.

RELATIONSHIPS WITH PEERS AND CHILDREN'S EMOTION REGULATION

Before discussing this larger problem of social isolation from peers for children with intellectual delays, it is important to take a closer look at the mechanisms through which behavior problems may operate to generate difficulties with peers, and to place these mechanisms within a developmental framework. In particular, the extent to which behavior problems identified in young children with intellectual delays represent problems in regulating emotions in interpersonal relationships provides insight into the connection with difficult peer relationships and subsequent social isolation from peers. Although the meaning and usefulness of the construct of emotion regulation continue to be debated (Cole, Martin, & Dennis, 2004), emotion regulation nevertheless generally refers to the ability of children to take action (e.g., alter their behavior) primarily to modify feeling states in order to help accomplish their interpersonal goals (see Eisenberg & Spinrad, 2004; Gottman & Katz, 1989; Thompson, 1994). Research on typically developing children based on nonclinical samples has highlighted the connection between emotion-regulation processes and social relationships involving peers. For example, given the opportunity to interact with peers in an unstructured setting, young children's behavioral tendencies, such as anxiety or impulsivity, interact with their ability to regulate their emotions to generate various degrees of social isolation from peers in predictable ways (Coplan, Gavinsky-Molina, Lagacé-Séguin, & Wichmann, 2001; Rubin, Coplan, Fox, & Calkins, 1995; Spinrad et al., 2004).

In view of the influence of emotion-regulation difficulties on children's degree of social involvement for typically developing children representing nonclinical samples, more substantial effects are to be expected, and do occur, for those typically developing children exhibiting behavioral problems that fall into the clinical range (Campbell, 1995; Webster-Stratton & Reid, 2004), or for higher-risk samples such as children who qualify for Head Start (Webster-Stratton & Hammond, 1998). In most instances, emotion-regulation difficulties take the form of externalizing problems. This behavioral pattern often results in these children ultimately being rejected by peers and becoming isolated from the peer group. Similar processes and problems are evident for children exhibiting internalizing problems (Rubin & Asendorpf, 1993).

Emotion-regulation difficulties indexed by behavior problems appear to pose similar difficulties with respect to the peer interactions of children with intellectual delays (see Crnic et al., 2004). Direct observations of the peer interactions of preschool-age children with intellectual delays in community programs reveal that not playing with peers is strongly associated with higher levels of behavior problems as rated by teachers (Guralnick & Groom, 1985). These emotion-regulation problems are especially apparent when children attempt to enter play with others. Not only are children with intellectual delays more intrusive and disruptive during peer group entry attempts than are comparable groups of children without delays, but they also use fewer emotion-regulation strategies (Kopp, Baker, & Brown, 1992; Wilson, 1999). It appears then that difficulties in emotion-regulation abilities may well be one important source which prevents children with and without intellectual delays from organizing an adaptive pattern of behavior in the peer context to enable them to participate effectively and to minimize social isolation.

THE LARGER PROBLEM OF SOCIAL ISOLATION

In view of the important connection between children's behavior problems (and presumably associated emotion-regulation difficulties) and the ability to effectively engage in interactions with peers, we would expect to find that children with intellectual delays would experience heightened levels of social isolation from peers in comparison with appropriately matched groups of typically developing children. Indeed, as suggested above, this is exactly what occurs, with high levels of social isolation taking many different forms. For example, the peer social interactions of young children with intellectual delays are far more restricted than those of comparable groups of children. This is evident with regard to both the frequency of community contacts with peers and the less extensive social linkages that exist with peers in both school and community settings – a circumstance likely to limit the depth of any peer relationship (Guralnick, 1997). Moreover, the development of friendships, characterized by a reciprocal relationship between children, has been a uniquely difficult challenge for young children with intellectual delays. Less than half can identify a "best friend" and, when participating with peers in short-term playgroups, infrequently display patterns of social interactions that would qualify as a reciprocal friendship (Guralnick, 1997; Guralnick & Groom, 1988; Guralnick, Gottman, & Hammond, 1996a). Even unilateral friendships seem difficult to develop; a problem that is likely to limit future social bonds with peers (Guralnick, Neville, Hammond, & Connor, submitted). Correspondingly, based on a series of peer sociometric and observational measures of social interactions with peers, children with intellectual delays in inclusive settings are less accepted by both typically developing peers and other children with delays (Guralnick, Connor, Hammond, Gottman, & Kinnish, 1996b; Guralnick & Groom, 1987a). As expected, these children engage

in more solitary play and fail to sustain socially interactive play very often (Guralnick et al., 1996b; Guralnick & Groom, 1987a; 1987b; Kopp et al., 1992).

Observations of young children with intellectual delays during interactions with peers reveal a pattern of social interaction that is likely to have contributed to these peer relationship and friendship difficulties. Most apparent is the absence of appropriate social strategies children use to achieve their interpersonal goals, such as gaining entry into playgroups, sustaining play sequences with peers in the face of the many changing demands that inevitably occur, and resolving conflicts that are frequent occurrences in the play of all children (Guralnick, 1999a). For example, during conflicts, children with delays display numerous negative interactions, often become non-responsive, and rarely utilize strategies considered to be conciliatory (Guralnick et al., 1998; Guralnick & Paul-Brown, 1989). Moreover, their social bids are less successful, suggesting poorly chosen or poorly timed social strategies (Guralnick et al., 1996b; Guralnick & Groom, 1987a; 1987b). It is important to point out that most of these peer interaction difficulties are evident when controlling for a child's developmental level.

These findings indicate that children with intellectual delays exhibit unusual problems in the domain perhaps best referred to as peer-related social competence. That is, children fail to display appropriate and effective social strategies sufficient to accomplish their interpersonal goals during social tasks such as peer group entry, maintaining play, and resolving conflicts (Guralnick, 1999a). Moreover, it has been estimated that these peer competence problems are characteristic of approximately 60–65% of children with delays (Guralnick, 1999b; 2001b). Accordingly, the magnitude of the problem of social isolation from peers in all its forms, along with corresponding short- and long-term effects on children's mental health, extends well beyond the approximately 25% of children with intellectual delays who exhibit behavior problems. Of importance, the high levels of social isolation from peers and self-perceived discontent with that circumstance continue to be reported as children with intellectual delays reach school age (Byrne, Cunningham, & Sloper, 1988; Howell, Hauser-Cram, & Warfield, 2001; Taylor, Asher, & Williams, 1987; Williams & Asher, 1992). Possible sources beyond emotion regulation for these extensive social isolation difficulties are considered next in relation to problems associated with peer-related social competence.

PEER-RELATED SOCIAL COMPETENCE

To be sure, numerous factors, including societal attitudes toward individuals with disabilities, contribute to the relative social isolation of such a large proportion of young children with intellectual delays. Nevertheless, it is quite likely that varying levels of children's peer-related social competence make the most important, if not dominant, contribution to the patterns of social isolation described above. An examination of the demands placed

on children during peer interactions to address social tasks reveals why this may well be the case. A major challenge for young children is to understand the pattern of social exchanges with peers in the face of highly unpredictable and dynamic circumstances. This occurs even when children have well-defined interpersonal goals such as focusing on one of the important social tasks of peer group entry, resolving conflict, or maintaining play. Adults, especially parents and teachers, try to minimize this unpredictability during their own social interactions with the child, often providing the needed structure and filling gaps when they emerge. No such structure or compensatory exchanges characterize child-child social interactions. Of note, many children, with or without disabilities, rely on scripted play interactions – a process that increases the predictability of exchanges (Furman & Walden, 1990; Nelson, 1986; Seidman, Nelson, & Gruendel, 1986).

Accordingly, interacting with peers usually takes the form of a social task requiring numerous complex social-information processing components (see Guralnick, 1999a). Children must encode and interpret rapidly emerging and often subtle social information and then make decisions as to which social strategies to select. Yet, the characteristic of general information-processing difficulties of young children with intellectual delays makes this a formidable task. Given the large number of children who exhibit difficulties in the rapid processing of information, attentional problems that make accurate encoding of information problematic, and executive function deficits that make it difficult for children to maintain a focus on and integrate information to solve social tasks appropriately and effectively, the unusual peer competence problems for this group of children become more understandable (Bray, Fletcher, & Turner, 1997; Kopp, 1990; Tomporowski, & Tinsley, 1997). Taken together then, it appears that these social-information processing concerns, combined with the previously discussed characteristic of emotion-regulation difficulties of children with intellectual delays, are sufficient to produce the widespread peer interaction, friendship, and related social isolation problems noted earlier, affecting as many as 60–65% of children.

FAMILY INFLUENCES

Contemporary models of peer-related social competence incorporate both social-information processing and emotion-regulation components. This provides a useful framework for understanding the influence of these various processes and how they interact to generate social strategies at varying degrees of appropriateness and effectiveness (Bierman, 2004; Dodge, 1991; Dodge, Pettit, McClaskey, & Brown, 1986; Guralnick, 1999a; Lemerise & Arsenio, 2000). In so doing, these models recognize that the social-information and emotion-regulation processes that underlie socially competent functioning with peers are governed not only by endogenous child characteristics (see discussion above), but by a variety of family factors as well. That is, many families find it difficult to establish family patterns of inter-

action likely to optimize their children's peer-related social competence. Placed in a more general framework, certain characteristics of their child can produce stressors that adversely affect one or more of the following major family patterns of interaction: (1) the quality of parent-child transactions; (2) family-orchestrated child experiences; and (3) the health and safety of the child as provided by the family (see Guralnick, 1998; 2005a) for a description of this general developmental model.

For example, numerous threats exist to optimal parent-child transactions as a consequence of a child's intellectual delay. Relationship features such as engagement, reciprocity, synchrony, and control are especially vulnerable (Crowell & Feldman, 1988; Guralnick, 1998; *in press-a*; Mahoney, Fors, & Wood, 1990; Spiker, Boyce, & Boyce, 2002). Yet, the level of "sensitive-responsiveness" on the part of parents is an important contributor to children's emerging competence with peers (Cohn, Patterson, & Christopoulos, 1991; Guralnick & Neville, 1997; Ladd & Pettit, 2002), including behavior problems (Crnic et al., 2004). Not only are appropriate and effective social strategies modeled in the context of parent-child social interactions that may well carry over to the peer situation, but these transactions also facilitate emotion-regulation processes. As a specific example, due primarily to discrepancies in the receptive and expressive language of children with intellectual delays, particularly children with Down syndrome, many parents fail to provide their child with sufficient experience with inner state words referring to their child's affective states (Tingley, Gleason, & Hooshyar, 1994). As a consequence, fewer emotion regulation tools (i.e., appropriate language) are available to the child (Beeghly & Cicchetti, 1997).

Another example can be found in the special difficulties parents have in arranging play experiences for their child with a delay. Yet, these children are highly dependent on their parent-orchestrated actions for such experiences with peers (Guralnick, Connor, Neville, & Hammond, 2002). The absence of sufficient experience with peers for children with intellectual delays clearly limits their opportunities to learn the scripts associated with peer play activities and minimizes opportunities for observational learning and receiving feedback regarding their use of social strategies during play with peers and in the context of social tasks.

Taken together, these and many other threats to optimal family patterns of interaction that support the development of children's peer-related social competence can contribute to the unusual peer interaction problems described earlier for children with intellectual delays. It is the cumulative impact that is of concern, thereby suggesting the need for a comprehensive approach to intervention to promote children's competence with peers and to reduce their social isolation. Practice and policy issues relevant to this problem are considered next.

IMPLICATIONS FOR PRACTICE AND POLICY

Despite recent recognition of the substantial problems of social isolation from their peers facing children with intellectual

delays, the barriers to practice and policy intended to remedy this situation are formidable. For many, this "child's play" is simply not accorded the sense of urgency that now seems warranted by practitioners and policy makers responsible for early intervention programs. Issues of cognition, language, and motor development or addressing serious behavior problems take priority. Indeed, social goals in general are often absent in young children's individualized educational plans. Systematic efforts to promote peer-related social competence in early childhood programs are not apparent and, when efforts are made, interventions are usually of low intensity (McConnell, McEvoy, & Odom, 1992; Michnowicz, McConnell, Peterson, & Odom, 1995; Odom, McConnell, & Chandler, 1993). Moreover, both parents and teachers believe that, to a large extent, endogenous child processes govern peer-related social competence (File, 1994; Guralnick et al., 2002). This belief further reduces the motivation for directing resources to this domain.

THREE APPROACHES TO PROMOTE CHILDREN'S PEER-RELATED SOCIAL COMPETENCE

Taking a long-term and comprehensive perspective, at least three approaches to promote the peer-related social competence of children with delays can be identified. First, a more relationship-oriented and family-centered approach is needed in the field of early intervention. Although much progress has occurred toward this end (see Bruder, 2000; Gilkerson & Stott, 2000), our field has yet to fully implement these important concepts in practice (Guralnick, *in press-b*). Should these practices improve and special emphasis be given to the stressors affecting family patterns of interaction relevant to peer-related social competence discussed earlier, more optimal child functioning in this domain will surely follow. Clearly, this is a long-term goal, but efforts are currently underway to address these general issues systematically in community-based programs (Guralnick, 2005b). This systems change process involves all components of community-based early intervention programs – from professional training, to assessment tools, to implementation and evaluation.

A second approach is to maximize participation of parents and children in regular school and community activities involving typically developing children. This principle of inclusion has important philosophical and ideological roots of course (Guralnick, 2001a), but is highly relevant to the issue of peer competence as well (Guralnick, 2001b). In one respect, increasing involvement in social activities of all sorts provides children with intellectual delays opportunities to learn the social routines associated with relationships of various kinds including those with peers (Fiese, 2002). It also establishes expectations that require attention to social participation with peers (see Guralnick, 2005c). Of equal importance, evidence suggests that inclusive preschool programs substantially increase the level of social interactions of children with delays (e.g., Guralnick et al., 1996b). Further analyses indicate that it is the demand characteristics of

the typically developing children that encourage this higher level of social interaction. It must be noted, however, that this increased level of social activity is not necessarily accompanied by increases in peer-related social competence. More direct efforts are needed to address the complex social-information and emotion-regulation processes that govern competence with peers discussed earlier.

This leads to the third and final approach that should be considered to promote the peer-related social competence of young children with delays and correspondingly reduce their social isolation with peers. This approach is related to the first two, but requires a highly intensive effort devoted exclusively to this problem. Specifically, even with broadly supportive early intervention programs and expanded inclusive practices, many children with intellectual delays will still exhibit significant problems in peer-related social competence during the preschool years. As noted earlier, it is during this period that activities involving peers become more prominent and problems become more evident. Unfortunately, although some promising interventions have been developed and some positive short-term effects obtained, longer-term or generalized enhancements in children's peer competence have not yet been achieved (McEvoy, Odom, & McConnell, 1992). It appears that for success to occur, intervention programs must not only be highly individualized and maintain a developmental orientation, but also be carried out within a framework that considers contemporary models involving social-information and emotion-regulation processes. Such programs must also be comprehensive and intensive, yet be able to be feasibly carried out (Guralnick, 2001b). This, of course, is an extraordinarily demanding task, and the modest but encouraging results of a recent randomized clinical trial suggest the potential value of this approach (Guralnick, Connor, Neville, & Hammond, in press). Nevertheless, a joint venture by clinicians and researchers will be needed in the years ahead to effectively refine this approach. Moreover, an agenda by policy makers involved in professional training and program design must be established that recognizes the value of focusing on this peer competence domain.

SUMMARY AND CONCLUSIONS

Developing productive and meaningful relationships with peers is central to the mental health of all children, including those with intellectual delays. Available evidence clearly indicates that a substantial majority of young children with intellectual delays exhibit special problems in forming peer relationships and friendships, thus increasing their social isolation from peers in their schools and in their communities. These problems can be attributed primarily to unusual difficulties associated with various social-information and emotion-regulation processes that underlie peer-related social competence. This under-recognized and under-emphasized problem, if left unaddressed, is likely to have a considerable negative impact on the quality of

life of individuals with intellectual delays in later years. Although problems associated with the characteristic of endogenous child-based emotion-regulation and social-information processes of young children with intellectual delays are strong contributors to these difficulties, various forms of family patterns of interaction also exert influence on these processes. These family patterns of interaction are often not optimal due to stressors associated with child characteristics. Specific stressors relevant to peer-related social competence have been identified and can be addressed following at least three approaches. First, comprehensive early intervention programs that enhance family-centered and relationship-oriented features can help promote children's competence with peers, as can the second approach which seeks to maximize child and family participation in typical community settings and activities. A third approach emphasizes highly specific and intensive interventions implemented during the preschool years focusing directly on children's peer-related social competence. In view of the magnitude, scope, complexity, and importance of this issue, it will require a systematic and persistent effort to alter practices in community-based early childhood intervention programs. These efforts must be supported by policies that encourage not only recognition of the problem but an appropriate allocation of resources to training, research, and development.

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