CONCEPTUAL ISSUES

Social competence as a future direction for early intervention programmes

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INTRODUCTION

The effectiveness of comprehensive programmes providing early intervention services to children with clearly documented handicaps has been evaluated extensively over the past 2 decades (see Guralnick & Bennett, 1987). From the outset, it has been apparent that numerous methodological and practical problems have made this evaluation effort a particularly difficult one. The diversity of subject populations, including their etiologies and the varying severity of disabilities, have combined with a host of programmatic factors such as the timing of intervention, its intensity, and the developmental model applied, to challenge our ability to arrive at a reasonable assessment of effectiveness. Questionable scientific practices relating to the possibly biased nature of observer judgments, inadequacies in interobserver reliability estimates, and non-standard and difficult-to-defend statistical approaches have allowed alternative interpretations of even some of the better controlled studies in the field (Guralnick, 1988).

Despite these difficulties, two general evaluation approaches have emerged yielding very similar outcomes. The first approach has focused on global statistical analyses of the diverse array of studies using meta-analysis techniques to generate estimates of the effects of early intervention (Casto & Mastropieri, 1986; Shonkoff & Hauser-Cram, 1987). The second approach has focused on specific populations of children, such as those with Down's syndrome, and has sought to provide a rational and logical analysis of findings, both experimental and developmental in nature (Guralnick & Bricker, 1987).

Interestingly, both approaches have yielded information suggesting that early intervention can indeed be effective for numerous groups of children. There appears to be general agreement that, for children with cognitive and general developmental delays, the group that is the focus of my discussion, early intervention can improve cognitive development as measured by standard intelligence tests to the extent of one-half to three-quarters of a standard deviation.

Nevertheless, there has existed in the field for some time a general sense of discomfort with prevailing thinking about the efficacy of early intervention for

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developmentally delayed children. This malaise goes beyond issues surrounding the scientific merits of the studies involved and stems in part from the relatively modest effects on intellectual functioning that have been achieved; despite highly vigorous, intensive, and comprehensive efforts. Moreover, and perhaps the more important factor, there are concerns related to the continued focus on cognitive development as the major and often sole index of programme effectiveness. Numerous authors have urged the field to explore noncognitive measures related to adaptive functioning, health, social competence and the like (Taft, 1983; Zigler & Trickett, 1978). Unfortunately, these appeals have rarely led researchers and evaluators to substantially modify their outcome measures. Dramatic improvements in assessments of family functioning and other programmatically sensible outcomes have occurred, but conceptually integrated, developmentally-based noncognitive measures of effectiveness remain to be identified and generally utilized.

The purpose of my discussion is to argue that the construct of social competence should constitute a vital element in both the design of early childhood intervention programmes and their evaluation, and that meaningful measures of social competence must be developmentally appropriate. This argument is presented even with the full recognition that the construct of social competence has not yielded any consensus with regard to definition or measurement (e.g. Anderson & Messick, 1974; Dodge, 1985). Nevertheless, the central features of this construct, which emphasize interpersonal social problem solving, the need for individuals to draw upon diverse developmental resources to accomplish their goals, and its dynamic-sequential nature, are highly appealing and stand in contrast to the more static measures common to most assessments of cognitive ability. Concerning its relationship to early intervention effectiveness, social competence appears to be of particular value for the following reasons: (1) socially competent functioning is of considerable developmental significance; (2) it is potentially malleable; (3) it provides a sensitive index of overall functioning; (4) its assessment can lead to useful intervention strategies; and (5) it can guide the design of preventive intervention programmes.

To illustrate these points, I will focus on young children's peer relationships, one of the most important aspects of social competence that emerges during the preschool years. In fact, the study of peer relationships has been remarkably fruitful in recent years, generating a database of great richness and utility (see Guralnick, 1986a; Hartup, 1983; Rubin & Ross, 1982; Schneider, Rubin & Ledingham, 1985). Descriptive information regarding the developmental course of children's relationships with their peers, its co-requisites and pre-requisites, as well as indicators of behavioral processes and individual social behaviors that seem closely tied to important aspects of peer-related social competence and to subsequent adjustment are now available (Corsaro, 1979; Krasnor & Rubin, 1983; Rubin et al., in press; Wright, 1980).

DEVELOPMENTAL SIGNIFICANCE

Difficulties in establishing relationships with one's peers has been linked to an array of later adjustment problems (Hartup, 1983; Parker & Asher, 1987). Although the predictive value of inadequate peer relationships may be rooted primarily in behaviour

problems, especially aggressive tendencies, extensive evidence is now available indicating that productive interactions with one's peers contribute significantly and uniquely to the development of children's social and communicative skills (Hartup, 1976, 1979). Perhaps the most devastating consequence of the failure to develop effective peer interaction skills is the isolation that results. Limited access to social and environmental resources and to stimulating experiences in contexts requiring equalitarian forms of interacting is likely to account not only for immediate difficulties but may well have long-term adverse consequences as well.

MALLEABILITY OF SOCIAL COMPETENCE

The susceptibility of a behavioral system to change is an element that must be considered in the design and evaluation of any early intervention programme. Fortunately, it appears that young children's social competence may well be highly malleable. Not only do socio-emotional factors appear to have lower heritability ratios than cognitive variables (see Zigler & Freedman, 1987), but the peer-related social competence of young children with cognitive and general developmental delays seems to be an especially vulnerable domain, lagging even further behind than their cognitive development (Guralnick & Groom, 1985, 1987; Guralnick & Weinhouse, 1984).

It is interesting to note that, unless one probes carefully, the peer interactions of young developmentally delayed children can be deceptive, as the overall pattern of their interactions is generally similar to that of normally developing children at comparable developmental levels. For example, the peer interactions of delayed children appear to occur with reasonable frequency, they tend to be positive, are organized reciprocally, and utilize an array of established individual social behaviours to accomplish their goals. However, despite these common surface features, delayed children engage primarily in highly limited forms of extended interactions. Specifically, the vast majority of children are unable to turn simple two-unit, initiation-response exchanges into more elaborate forms of group play. Moreover, the frequency distributions of those social behaviors believed to reflect socially competent functioning with peers, such as directing others and using them as resources, tend to be notably absent. Finally, despite increases in the frequency and quality of peer play during a given year, the availability of new playmates, often occurring at the beginning of a school year, is highly disruptive to delayed children as revealed by cross-sectional research over the preschool years (Guralnick & Groom, 1985, 1987; Guralnick & Weinhouse, 1984).

Although the social processes involved in group entry or conflict resolution that are associated with these peer interaction deficits are less well understood, it is clear that problems can occur in almost any domain. This issue will be discussed in a subsequent section. In addition, as might be expected, similar deficits have been observed in friendship formation, as even mildly delayed preschool age children have considerable difficulty in establishing reciprocal friendships and are unable to take advantage of the developmental opportunities provided by these more intimate relationships (Guralnick & Groom, 1988). Clearly this cognitive development-peer

social competence discrepancy suggests an important opportunity for well-designed early intervention programmes.

SENSITIVE INDEX

The argument suggesting that measures of peer-related social competence can be sensitive indices of overall functioning reflects the fact that the circumstances surrounding the establishment and maintenance of peer interactions are likely to bring almost any developmental problem into focus. First, it must be noted that child-child interactions tend not only to be unpredictable, at least initially, but also present a social problem-solving task for young children in which they can count on only relatively limited assistance from their companions. Peers make data-based decisions (Asher, 1983), and the burden of an interaction is clearly placed on both interactors. This circumstance should be contrasted with the responsiveness of adult partners and their ability and interest in interpreting a child's intent and in supporting and maintaining an interaction (e.g., Martinez, 1987), especially when it is in jeopardy. Accordingly, the conditions surrounding child-child social exchanges may allow problems to be detected that were masked by responsive partners and by compensating social environments.

Second, and perhaps most important, is that disruptions in peer-related social competence can occur as a consequence of disruptions in virtually any developmental domain. The ability of children to compensate for their delays, disabilities or disorders is certainly recognized. However, the dependence of successful peer relations on the proper sequencing of skills and the importance of the inter-relationships among skills from so many developmental areas suggest the existence of a sensitive index. In fact, minor problems in different developmental domains may, in combination, create major difficulties for a child when faced with a complex social problem-solving task. Moreover, the moment-to-moment adjustments and accom-modations that must be made within a broad social-cognitive context during child-child interactions may reveal deficits not detectable by evaluations that fail to probe these dynamic processes.

PROVIDES DIRECTION FOR INTERVENTION

As mentioned, the rapid expansion in research on young children's peer relations in recent years has brought with it a corresponding increase in our understanding of its pre-requisites, co-requisites and correlates. Once a particular social task reveals difficulties, either broadly conceptualized such as simply establishing peer interactions or as part of a sub-task such as group entry, a framework for assessment can be set into motion that helps identify specific processes or child characteristics contributing to these problems. Processes and child characteristics of consequence include temperament, cue recognition skills, selection of appropriate social play goals, the ability to utilize routines and established social conventions, types of play themes suggested, strategies utilized following failures to interact, the timing and content of initiation attempts, environmental factors such as limited availability of responsive and supportive peers, approaches to resolve conflict, and the existence of minor

behaviour problems that can interfere with peer relations. Of course, many of the interactive processes have important cognitive or social-cognitive underpinnings, and difficulties in information-processing skills are central to our understanding of peer interaction deficits (see Dodge *et al.*, 1986). Nevertheless, once those specific processes that are likely to affect peer interactions substantially and directly are identified, a more thoughtful intervention programme can be constructed.

We are still learning about the strength of these and other variables' ability to affect the outcome of peer interactions. For example, in a recent study, contemporaneous ratings by mothers of delayed and nonhandicapped 3- and 4-year-old children of their child's temperament, based primarily on home observations using the Behavioral Style Questionnaire (McDevitt & Carey, 1978), revealed some surprisingly powerful relationships with children's peer relationships. Specifically, multiple regression analyses indicated that the temperament characteristic of persistence was the best predictor of both a positive social interaction factor and a negative relationship factor with peers (Guralnick & Groom, under review). In fact, the individual correlations for persistence averaged over 0·50 for these composite measures of peer interaction. This correlation remained high even when I.Q. was controlled.

PREVENTION

This focus on social competence suggests as well numerous opportunities to prevent or minimize problems. There is every reason to believe that peer interaction deficits, i.e. those that extend beyond that which is expected on the basis of a child's developmental level, emerge partly as a consequence of less than optimal transactions occurring in numerous social-interpersonal contexts and developmental periods. The correspondence between security of attachment and subsequent peer interaction (Lieberman, 1977; Water *et al.*, 1979), correlations between maternal behaviors associated with social competence and child-child social interactions (Putallaz, 1987), the tendency for handicapped preschool children to have restricted opportunities to interact with peers (Lewis *et al.*, 1987), including the prevalence of segregated and often socially limiting preschool environments (Guralnick, 1986b), and unusual difficulties in parent-child interactions that may impact upon social competence in general (Brooks-Gunn & Luciano, 1985) are all developmental processes that are both susceptible to change and have a direct impact on children's peer-related social competence. Although the focus on social competence described here provides a potentially important framework for guiding a comprehensive preventive intervention programme, preventive programmes of this type have not yet captured the attention of clinicians or researchers.

CONCLUSIONS

The predominant use of cognitive development to evaluate the success of early intervention programmes for developmentally delayed children is, in an historical context, quite understandable. It is difficult to conceptualize sensible evaluation programmes without a strong cognitive component. However, we have learned much

over the past 2 decades of early intervention projects and it is now time to move on. I have suggested in this paper that social competence is a domain that early intervention programmes should consider strongly from prevention, intervention and evaluation perspectives. That aspect of social competence discussed here focused on peer interactions, but other developmental tasks bearing on social competence could have been selected. It remains to be determined how feasible it is for early intervention programmes to implement these ideas related to social competence and whether their promise will be fulfilled.

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