The effects of parent training on parent-child interactions in an urban community

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THE EFFECTS OF PARENT TRAINING ON PARENT-CHILD INTERACTIONS IN
AN URBAN COMMUNITY

by

Christina Lewis

A Thesis
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Approved by

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ABSTRACT

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THE EFFECTS OF PARENT TRAINING ON PARENT-CHILD INTERACTIONS IN AN URBAN COMMUNITY
2002
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Master of Arts in Special Education

Parent training based on previous studies was provided in an urban community. The effectiveness of parent training for parent-child interactions during freeplay and the effectiveness of parent training to change parents’ attitudes towards parent-child interactions were examined. Three parents, together with their children in a Head Start program participated in the study. A multiple baseline design across paired parent and child was used. Baseline data were collected through observations on parent and child interactions prior to the training, and intervention data were conducted after the training was implemented.

The results showed that all participating parents increased in verbal interactions with their children. Meanwhile, children’s verbal responses showed a decrease due to their speech and language delays. However, the data were variable because of the short time of training and intervention.
The purpose of the study was to examine the impact of a parent training program on parent-child interactions in an urban community. Three parents, with their children in a Head Start program participated in the study. A multiple baseline design across paired parent and child was used. Baseline data were collected through observations on parent and child interactions. Intervention data were conducted after the training was implemented. The results showed that all participating parents increased in verbal interactions with their children.
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Chapter 1

Introduction

Statement of Problems

A primary goal of early intervention is to enhance the development of young children with special needs (Able-Boone, 1996). Issues regarding positive developmental outcomes of infants and toddlers are best addressed in the context of their families, more specifically, of the parent-child relationship (Able-Boone, 1996). It seems that supporting parents is important for providing a nurturing environment for their children (Able-Boone, 1996). Freeplay provides an environment that contains materials and adults with whom children can interact (Morrison, 1991). The expected outcomes during freeplay are socialization, emotional development, self-control, and readiness skills for a school setting (Morrison, 1991). Parent education provides parents with appropriate skills within the context of parent-child play to promote healthy parent-child relationships (Able-Boone, 1996).

Optimal parent-child relationships are responsive and reciprocal, with both parents and children entering the relationship with certain communication abilities (Calhoun, Rose, & Prendergast, 1991). Parents are encouraged to recognize, interpret, and respond contingently to the communicative cues of their children (Calhoun, Rose, & Prendergast, 1991). Unfortunately, some parents have difficulty developing and sustaining mutually satisfying parent-child relationships, which has impacted children’s opportunity for communication and learning interaction skills, especially children with
disabilities (Calhoun, Rose, & Prendergast, 1991). For children with disabilities, the balance and reciprocity of interactions between parents and children has been found to be disrupted, particularly as a result of parental directiveness (Girolametto & Tannock, 1994; Mahoney & Powell, 1988; Marfo, 1992).

Studies of children with disabilities, including Down Syndrome (Mahoney, Fors, & Wood, 1990), cerebral palsy (Light, Collier, & Parnes, 1985), and language delays (Rescorla & Fechnay, 1996) have indicated that mothers adopt a directive style when communicating with their children. They often demonstrate dominant interactions by using a controlling style (i.e., issuing a high proportion of directives) and fail to respond to their children’s communication attempts (Rescorla & Fechnay, 1996). Closer examination of the data and questions about the meaning of directiveness has indicated that this style is often used as an adaptation to a lack of communication attempts by infants with disabilities (McCollum & Hemmeter, 1997). A problem with reading signals of children with disabilities whose clarity of prelanguage communications attempts tends to be poor as well (McCollum & Hemmeter, 1997; Yoder & Warren, 1993).

The rate of communicative acts appears to be influenced by the adult’s contingent responses, which in turn are dependent on the clarity of the child’s communication (Yoder & Feagans, 1988; Yoder, Warren, & Hull, 1995). The fact is that the clarity of these prelinguistic signals tends to be poor in children with disabilities (McCollum & Hemmeter, 1997), particularly those with severe and multiple disabilities (Iacone, Carter, & Hook, 1998). Intervention at this stage may impact on later language learning (Warren & Horn, 1996; Yoder & Warren, 1993).
Enhancing parent-child interactions have often been the focus of early intervention programs (Seitz & Provence, 1990). The educational interventions aimed at parents have been related with improving developmental outcomes for children (Seitz & Provence, 1990). In addition, adult interaction styles characterized by behaviors that are stimulating to a child show an awareness of the individual's temperament and style (Barnard, 1987; Korner, 1987). Greater cognitive, linguistic, motivational abilities and social skills have been associated with positive parent-child interactions. Poorer outcomes have been associated with interaction styles typified by low amounts of verbal and nonverbal communication, unrealistic expectations and negative affect (Cooper, Dunst, & Vance, 1990) as well as chaotic or insufficient stimulation and noncontingent responsiveness (Seifer, Clark, & Sameroff, 1991).

During the last two decades, an increasing emphasis on the importance of promoting parent-child relationships in intervention efforts with high-risk families has been noted (Baird & Peterson, 1997). Research has substantiated the link between the early social environment of a child and his/her later development (Ainsworth, et al 1996). It is assumed that a young child's social and emotional competence achieved through a reciprocal and nurturing parent-child relationship, is the cornerstone of the child's successful development (Barnard, 1997).

According to Niccols and Mohamed (2000), infant development programs provide service for families of infants with developmental delays, or who are at risk of developmental delays due to established deficits, biological factors, or environmental factors (e.g.; poverty, parenting concerns). Currently, the standard intervention involves home visiting and a family-centered approach incorporating parent support and education.
(Niccols & Mohemed, 2000). Parent education describes a range of activities, most of which are offered to individual families and designed to address specific learning needs identified by the families themselves (Dinnebeil, 1999). Parent education provides parents’ skills to strengthen the parent-child relationship through play activities designed by interventionists (McCollum & Yates, 1994). As a result, parent education is beneficial to parents who lack a basic knowledge in child development (McCollum & Yates, 1994).

Although the research is extensive and compelling, the application of this knowledge to intervention practice has moved at a slow pace, and the most common practices in early intervention are not directed to improve the quality of parent-child interaction (Filer & Mahoney, 1996). As Kelly and Barnard (2000) point out, most service providers lack the necessary training to give instructional feedback to parents regarding the quality of the parent-child relationship and are therefore hesitant to intervene because of their inadequate preparation. This happens in urban communities where parent’s lack of skills to enhance their child’s development is due to limited resources for training and education. It is needed to provide parent education in these communities for minority parents and evaluate effective early intervention practices and personnel training strategies that promote quality parent-child interaction. The present study will conduct research in parent training in urban communities and evaluate early intervention practices to promote parent-child interactions.
Significance of the Study

Using an environment to promote an enjoyable parent-child interaction between the parent and child with disabilities was reported in child development studies (McCollum & Yates, 1994). Freeplay is often the environment for practice between the parent-child relationship and communication skills. During parent training the focus will be on parents attention to strategies of the intervention; helping the parent understand and interpret their child’s development from interventionists, who will comment about, label, or interpret their child’s actions within the parent-child play. Lastly, a specific behavior or skill would be modeled during parent-child interaction for the parent and suggestions about specific behaviors or actions will be provided to the parent within the context of parent-child play.

There are many studies on parent-child interactions and parent training to enhance communication (McCollum & Yates). However, little research has found in urban communities where parents have limited knowledge and resources about child development. In this study, a parent-training program will be designed to focus on parent-child interactions and to evaluate its effectiveness with an African-American population in a low-income area. The study will provide parent training for minority mothers who have limited knowledge about child development in an urban community. Freeplay will be the environment for parent-child intervention, because parents will have the opportunity to actively participate in their child’s learning activities. This will enable their children to learn experiences when interacting with their mothers in interesting activities.
Statement of the Purpose

The purposes of this study are: (a) to provide an urban community with parent training based on previous studies (Dinnebeil, 1999); (b) to examine the effectiveness of parent training in parent-child interaction during freeplay; (c) to examine the effectiveness of parent training by parents’ attitudes towards parent-child interaction.

Research Questions

1. Does parent training impact parent-child interaction during freeplay?

2. Does parent training have an impact on children or parent’s nonverbal and verbal skills?

3. Does parent training impact parents’ attitudes towards parent-child interactions during freeplay?
Chapter 2

Literature Review

Introduction

This chapter will review related studies in parent training and parent-child interactions. An important role that parents play in a regular early childhood environment will be discussed, especially the role of parents who have children with disabilities, such as cerebral palsy, Down syndrome, autism, or hearing impairments. The importance of parent-child interactions with children in a regular early childhood environment and the parent-child interactions of children with disabilities will be focused. The impact of parent training on parent-child interactions will also be discussed, including the elements of various parent-training programs for families of children with disabilities.

Role of Parents in an Early Childhood Environment

The focus of early intervention and the roles that parents play in planning and implementing services have evolved from an institution/agency approach to a child-centered approach and finally to a family-centered approach (Wehman, 1998). Parents’ roles as consumers of early services have changed to advocates on behalf of their children. This change has had a significant impact on the development and implementation of family-centered services (Wehman, 1998).

The transactional model of child development (Sameroff, 1975) places equal emphasis on the effects of the child and the environment. The child is seen as a product...
of the continual dynamic interactions of the child and the experience provided by his or her family and social context (Sameroff & Chandler, 1975). Social experiences are now recognized as critical components of all development, both normal and abnormal. Sameroff (1993) described this interplay of social experience on a child’s development: “The experience of the developing child is partially determined by the beliefs, values, and personality of the parents; partially by the family’s interaction patterns and transgenerational history, and partially by the socialization beliefs, controls, and support of the culture” (p.10).

Social support theory (Cohen & Syne, 1985) describes the properties of social units, the links among them, and how provision of support by network members promotes individual, family, and community well-being. Social support includes emotional, psychological, physical, informational, instrumental, and material aid provided by others (Cohen & Syne, 1985). There is a growing evidence that social support directly and indirectly influences parent, family, and child behaviors, including personal health and well-being (Patterson & McCubbin, 1983); adaptations to life crisis (Moos, 1986); satisfaction with parenting (Crnic, Greenberg, Rogozin, Robinson, & Basham, 1983); parental styles of interaction (Trivette & Dunst, 1987); aspirations for self and child (Lazor & Darlington, 1982); child temperament (Affleck, Tenner, Allen, & Gershman, 1986); and child behavior and development (Crnic, Greenberg, & Slough, 1986).

Dunst’s (1985, 1986) extensive research on social support systems has provided professionals working in early intervention with a new understanding about how best to support families. His research indicates that help is most beneficial when it promotes the
acquisition of self-sustaining and adaptive behavior that makes a family better able to meet needs and achieve desired goals (Dunst, 1986). These two conclusions support a family-needs-based-early intervention model (Dunst, 1985, 1986).

The main roles of families are as service providers, including planning intervention for their child, delivering services through training, teaching, or therapy. Parents participate as teachers/trainers of their child (Hanson, 1985). There has been much research done on the effectiveness of parent education and parents as teachers/trainers of their children with disabilities (Barrera, Watson, & Adelstein, 1987). Although research findings have generally supported the effectiveness of parents as teachers, some findings do suggest caution in implementation. Some research review on parents as teachers (e.g., Breener & Beck, 1984; O’Dell, 1985) concluded that although training may be effective, generalization and maintenance of effects are less well documented.

Despite some problems existed in the effectiveness of parents as teachers, parents still play an important role as an instructor for their child (Mahoney & Robinson, 1992). Recent research has found that parent-child interaction provides potential benefits of early childhood education (Mahoney & Robinson, 1992). For example, parent-child interaction with books has been shown to contribute to the child’s language and literacy skills (Snow, 1983). Through the focused and routinized activity of joint book reading, the child first learns to label, then to describe events and finally to expand on the causes and consequences of events (Heath & Branscombe, 1986; Ninio & Bruner, 1976; Snow & Goldfield, 1983; Snow & Ninio, 1983). Children also learn to value books, to
recognize print and to know what to do with books as a result of parent-child interaction (Snow & Ninio, 1983).

Being their children's teachers in the early stages of development, parents also share a common desire that their children understand the story (Snow & Ninio, 1983). They expect the child to gain a full understanding of event sequence, the character's motives and the consequences of events. They do this by asking the child how, what, when and why questions (Snow & Ninio, 1983). Parents also employ questions to scaffold their children's contributions. Their questions are embedded in the story and make the children's comments more complete (Snow & Ninio, 1983). These questions allow children to participate more fully than their current abilities may permit (Applebee & Langer, 1983). Parent expectations for the content and complexity of a child's contributions change with improvements in the child's responses and language complexity and with the child's familiarity with the book (Altwerger, Diehl-Faxon, & Dockstader-Anderson, 1985; Martinez & Roser, 1985).

There has been growing theoretical interest in the developmental impact of linking parents to the other contexts in which their children are being socialized (Bronfenbrenner, 1979; Peters & Kontos, 1987). Shared partnerships and continuity of care have become predominant themes in early childhood education due to increased maternal employment and consequent use of nonfamilial childcare (Powell, 1989).

Correspondingly, there has been increased recognition among early childhood specialists that definitions of quality programming should incorporate the notion of parent involvement (Bredekamp, 1989; Bradbard & Endsley, 1991). These new definitions of quality, in turn, reflect the emerging acceptance, among practitioners that
parent involvement can impact positively both the children and the agents responsible for their care (Powell, 1989)

**Roles of Parents Who Have Children with Disabilities**

The belief that early intervention programs will be more effective if parents are involved has continued to the present (Boyce, White, & Kerr, 1993). Public Law 99-457 mandates a substantial family involvement by requiring every child with disabilities in early intervention programs to have an Individualized Family Service Program (IFSP) (Boyce, White, & Kerr, 1993).

Despite the widespread belief that early intervention programs for children with disabilities will be more effective if parents are involved, the hypothesis has seldom been systematically tested using well-controlled research (Boyce, White, & Kerr, 1993). As White, Taylor, and Moss (1992) concluded in their extensive research review on the benefits of involving parents in early intervention programs: “Much of the perception that parent involvement is beneficial has been based on anecdotal reports and poorly designed research” (p.119). Thus, further research may be needed to evaluate the effectiveness of parent involvement in early intervention.

Parent involvement is a broad term that has been used to refer to a number of different types of activities. In early intervention programs, parent involvement usually has included one or more of the following components: teaching parents specific intervention skills to assist them in becoming more effective change agents with their child; providing social and emotional support to family members; exchange of information between parents and professionals; participation of parents as team members (e.g., assessment of program planning); development of appropriate parent-child
relationships; and assisting parents in accessing community resources (McConachie, 1986; Peterson & Cooper, 1989).

From a content analysis of 172 early intervention research studies that had involved parents in a substantial way, White, Taylor, and Moss, (1992) concluded that the most frequent way parents had been involved in their children’s early intervention was in educational programs in which parents were trained to care for, stimulate, teach their child, ways and strategies to manage or engage the child in activities that promote optimal development and learning (Boyce, White, & Kerr, 1993).

The parent’s role in scaffolding joint engagement in play behavior is underscored by the findings that peers are less successful than mothers in capturing infant attention in play (Bakerman & Adamson, 1984). The contingency and mutuality expressed within these early shared experiences appear to facilitate the child’s engagement in joint activity and eventually to culminate in the spontaneous coordination of attention to both objects and persons in the environment (Bakerman & Adamson, 1984). In the second year of life, recurrent episodes of joint engagement are believed to provide motivational and informational opportunities that help the child make comparisons between the verbal and nonverbal contexts (Cross, 1977; Hoff-Ginsberg, 1986). These episodes are also believed to help the child induce the relationships between language form, content, and use (Cross, 1977; Hoff-Ginsberg, 1986). It was hypothesized that the immediate effects of intervention would be reflected in an increase in the duration and frequency of joint engagement episodes between parent-child dyads and a decrease in unitary engagement and unengagement (Girolametto, Verbey, & Tannock, 1994).
Importance of Parent-Child Interaction in an Early Childhood Environment

In early childhood education, interactions between parents (primarily mothers) and their young children are critical to the child’s cognitive, language, and social development (Bee et al., 1982; Coates & Lewis, 1984; Hart & Risley, 1992; Olson, Bates, & Bayles, 1984).

Mastery of developmental tasks does not simply result from children being exposed to optimal environmental stimulation. Rather, the key ingredient is the quality and frequency of interactions that children have with the objects and people in their experiential world (Bredekamp, 1991). Through the initiation of active learning behaviors such as exploration, manipulation, persistence, and problem solving, children develop an insight to and understanding of their world (Bredekamp, 1991). This enables children to become more proficient in the use of their existing behaviors and motivates them to acquire more efficient means for accomplishing their goals (Bredekamp, 1991).

Attachment theory (Ainsworth, 1990; Ainsworth, Blehar, Waters, & Wall, 1978; Bowlby, 1973, 1982) provides a framework for conceptualizing the nature and implications of parent-child relationships. According to the theory, children form ties to caregivers that vary in terms of the security bonds. Children who form secure attachment are able to use the attachment figure (AF) as a safe haven in times of distress and as a secure base to support exploration and play in times of low distress (Ainsworth, 1990; Ainsworth, Blehar, Waters, & Wall, 1978; Bowlby, 1973, 1982).
More secure attachments are thought to be a product, in part, of caregiving histories in which a child has received responsiveness and sensitive care from an attachment figure (i.e., a non-interfering style in which a parent is responsive to a child’s needs and concerns) (Ainsworth, 1990; Bretherton, 1987). A hallmark of secure attachment is an open and relaxed communication between parent and child, particularly with regard to communications concerning the experience of positive and negative affect (Ainsworth, 1990; Bretherton, 1987). Further, attachment has implications for functioning outside the parent-child relationship in that more securely attached children are expected to demonstrate greater curiosity and confidence when working on challenging tasks and to have less difficulty in social interactions with familiar peers (Kerns, 1996; Sroufer, 1988).

The theory has been applied to the study of parent-child relationships in some developmental periods more than others, partly because of measurement issues (Ainsworth et al., 1978). For a long time, the Strange Situation served as the only measurement of attachment and originally was validated only for 12-18 months olds (Ainsworth et al., 1978; Belsky & Cassidy, 1994). More recently, a number of other techniques have been developed to measure attachment in older children (Solomon & George, 1999). For the early childhood years, there is a Q-set assessment of attachment for infancy and the preschool period that is grounded in the secure-based/safe-haven constructs, and there are separation-reunion procedures for preschool or early elementary school age children (Solomon & George, 1999).

Very few studies have examined the relationship between caregiver sensitivity and infant attachment security in dyads with infants with development delays. The
existing research suggests that the risk of insecure attachment of these children may be related to caregiver responsiveness (Lederberg & Mobley, 1990; Wasserman, Lennon, Allen, & Shilansky, 1987). In a longitudinal study of children with Down syndrome, Atkinson and his colleagues found that maternal coping style and affective distress interact to influence maternal sensitivity and child cognitive level interact to predict attachment security (Atkinson et al., 1999). Taken together, these findings suggest that interventions aimed at increasing a caregiver’s sensitivity in perceiving, interpreting, and responding to the cues and signals of their infants with developmental delay may promote attachment security, which may then have implications for future development across a variety of domains (Atkinson et al., 1999).

**Importance of Parent-Child Interaction for Children with Disabilities**

Investigations of parent-child interaction are based on the assumption that the routine interaction children have with parents and other caregivers are the primary influences on early development (Mahoney & Robinson, 1992). During the past 10 years a number of studies have been reported examining the kinds of guidance and support children with disabilities need to attain optimal levels of learning and development (Mahoney & Robinson, 1992). Although this research is descriptive and correlational in nature, the pattern of findings is compatible with the philosophy and principles of developmentally appropriate practices (Mahoney & Robinson, 1992).

According to Mahoney and Robinson’s study (1992) on the effects of parent-child interaction for children with disabilities have addressed three questions that are relevant to the development of instrumental practices. They are as follows: (a) how do parents impact the rate of development that children attain? (b) how are children’s active
participation influenced by the adults style of interacting with them? (c) how do interventions that modify the interactive style of adults influence the children's development? (Page 5).

Many studies have reported parent-child interaction influences development of children with disabilities. Mahoney, Finger, and Powell (1985) examined patterns of interaction between 60 mothers and children with mental retardation that were between 12 and 36 months of age. The behavioral style of these mothers was assessed across a number of global characteristics they displayed while playing with their children. These characteristics include responsiveness, enjoyment, sensitivity, stimulation, directiveness, and teaching. Results indicated that children with the highest levels of developmental functioning had mothers who were rated as being highly responsive and child oriented. They responded to and followed activities their children initiated, and they were effective at gaining their children's cooperation (Mahoney, Finger, & Powell, 1985). Children with the lowest levels of developmental functioning had mothers whose interactional style was classified as directive and teaching oriented (Mahoney, Finger, & Powell, 1985). These mothers structured much of their play around activities that would promote specific developmental skills and behaviors (Mahoney, Finger, & Powell, 1985). They attempted to engage their children in activities that they had chosen and they seldom followed or supported activities that their children had initiated (Mahoney, Finger, & Powell, 1985).

Brooks-Gunn and Lewis (1984) examined interactions among a sample of 111 dyads that included children with disabilities (Down syndrome, cerebral palsy, developmental delay) ranging from 3 to 36 months of age. Mother-child play was rated
using a discrete time-sampling procedure. Results indicated that variability in children’s mental age as measured by the Bayley Mental Development Scale (Bayley, 1969) was significantly related to maternal responsiveness to children’s behavior (Brooks-Gunn & Lewis, 1984). Children were more likely to have higher developmental scores the more frequently their mothers vocalized, looked, or smiled in a meaningful manner immediately following their maternal responsiveness and children’s development was unrelated to children’s chronological age, handicapping condition, or type of behavior they produced (Brooks-Gunn & Lewis, 1984).

Mahoney (1989a, 1989b) investigated the relationship of maternal communication style to children’s rate of communication development. Results indicated considerable variability in the manner that mothers communicated with their children. Mothers who communicated by responding to the children’s nonverbal behavior as if it were a meaningful part of a conversation had children who both communicated frequently with their mothers and had relatively high expressive language age scores (Mahoney, 1985). Mothers who modeled and encouraged their children to use appropriate words or phrases tended to be less responsive to their children’s nonverbal communication (Mahoney, 1985). The children of these mothers both communicated less often and had lower expressive language age scores than children of more communicatively responsive mothers (Mahoney, 1985).

In general, descriptive studies of parent-child interaction provide evidence that children with disabilities display higher levels of developmental functioning when their parents tend to use a style of interaction that (a) accepts and values the behaviors that children are able to do; (b) is highly responsive to their interests; and (c) provides them
ample opportunity to exercise control over the activities in which they are involved. The interactive characteristics associated with higher levels of functioning among children with disabilities replicate reports from numerous investigations of parental interaction with normally developing children (Ainsworth & Bell, 1973; Beckworth & Cohen, 1989; Bornstein & Tamis-Le-Monda, 1989; Bradley & Caldwell, 1982; Clark-Stewart, 1973; Lewis & Goldberg, 1969; Yarrow, Rubenstein, & Pederson, 1975). Although the descriptive nature of these studies limits causal interpretations, it is nonetheless important to note that none of these studies indicate that children with disabilities achieve optimal rates of development when parents interactive style reflects the directive and instructional characteristics associated with the early childhood special education model (ECSE) (Mahoney & Robinson, 1992). To the contrary, the kinds of child-oriented relationship encouraged in early childhood education (ECE) models are consistently associated with higher levels of communication and developmental growth (Mahoney & Robinson, 1992).

Recently, some studies have found children’s engagement in relationship to adult style of interaction (Mahoney & Robinson, 1992). Findings from these studies indicate that children with disabilities are more actively engaged while interacting with adults who are more responsive and child oriented as compared to their interactions with adults who are directive and performance oriented. This relationship has been observed in studies of both parent-child and teacher-child interaction (Mahoney & Robinson, 1992).

In their study 41 children with Down syndrome, spina bifida, cerebral palsy, hydrocephalus, and developmental delays of unknown origin ranging from 2-32 months of age participated. Parents were instructed to use the interactive strategies of turn taking
and interactive match as means of monitoring their routine interaction with their children, they would support and encourage their children’s active engagement in routine interactions, and were dissuaded from teaching specific developmental skills (Mahoney & Powell, 1988). A pre/post design assessment was used to obtain the effects of this program.

Children who made the greatest developmental gains as measured by the Bayley Scales of Mental Development (Bayley, 1969) had parents who were the most child oriented and responsive. The developmental gains achieved by these children were 48% greater than the gains made by children of parents who were more teaching oriented and directive (Mahoney & Powell, 1988). The results indicate that children with disabilities achieve desirable developmental outcomes when their primary caregivers adopt a responsive, child-oriented style of interaction (Mahoney & Robinson, 1992). These results suggest that the procedures associated with developmentally appropriate practices have the potential to effectively promote the cognitive, language, and social development of children with disabilities, as long as the implementation of these practices is commensurate with the interests and levels of functioning children (Mahoney & Robinson, 1992).

There has been an increasing trend in recent years to attribute the communication difficulties experienced by children with hearing loss, not to deficiencies or shortcomings cause by the deafness, but to inadequate and ineffective patterns of interactions with the hearing persons, particularly adults who surround them (Vygotsky, 1978). Tronick, Als, & Brazelton (1977, 1981) have found that both mothers and infants are active and mutually influential participants in mother-infant exchanges. Successful maternal
behaviors, then, are not defined in isolation, but in terms of their effectiveness in promoting the child’s participation and development (Jamieson, 1995).

The ability of mothers to establish joint attention with infants as young as 4 months of age, through mechanisms such as joint eye gaze, allows the hearing mothers to look at and discuss the object of her child’s attention simultaneously (Rogoff, Malkin, & Gilbridge, 1984). Joint eye gaze is typically attained between hearing mothers and infants by the mother’s following her child’s line of gaze and providing a verbal commentary on the object of focus (Spencer & Gutfreund, 1990a). From a dialectical point of view, these early mother-infant interactions are characterized by the child’s active participation in determining the object of attention and by the mother’s responsiveness in coming to share and elaborate upon this focus (Spencer & Gutfreund, 1990a).

The most consistent findings to emerge from two decades of research on patterns of intervention between hearing mothers and their children who are deaf is the more directive, less responsive maternal behavior in comparison to that of mothers of children with normal hearing (Tannock, 1988).

The directive maternal patterns between hearing mothers and their children with hearing loss appears to have its roots in early mother-infant interactions and to be firmly established by the time the child attains preschool age (Spencer & Gutfreund, 1990a). For example, (Spencer & Gutfreund, 1990a, 1990b) found that hearing mothers tended to control topic setting during interactions with their infants who are deaf. This directive maternal behavior was much less evident in the communication patterns of two of the comparison groups in the second study. Mothers and children shared the same hearing
status (i.e., were either deaf or both hearing), and mothers were more likely to follow the infant’s gaze and provide contingent language input. Following a further, more detailed analysis of the interactions occurring between these mothers and children, Spencer, Bodner-Johnson, & Gutfreund (1992) found that “even given equal opportunities by their infants to be responsive, hearing mothers of infants with hearing loss were less responsive than deaf mothers with deaf infants or hearing mothers with infants without hearing loss” (p.75).

Extensive research has shown that hearing mothers of preschool children with hearing loss used more behavioral directives when interacting with their children conversationally (Cheskin, 1981; 1982; Lederberg, Binz, McIntyre, & McNorton, 1989), in a play situation (Meadow, Greenberg, Erting, and Carmichael, 1981), or during problem-solving (Jamieson, 1994; Jamieson & Pedersen, 1993) than did mothers of same-age hearing children.

In addition, in the Jamieson and Pedersen study (1993), the children in the hearing-mother deaf-child group demonstrated poorer independent problem-solving abilities and more help-seeking behaviors than did the hearing children of hearing mothers. Taken together, the studies examining the interactions between hearing mothers and their infants and children who are deaf are striking in the consistency of their findings of maternal responsive control and children’s lack of initiative (Jamieson & Pedersen, 1993).

**Impact of Parent Training Programs on Parent-Child Interaction**

The term, parent education often conjures up visions of group activities with didactic instruction provided about various topics (Dinnebeil, 1999). However, parent
education should describe a range of activities most of which are offered to individual families and designed to address specific learning needs identified by the families themselves (Dinnebeil, 1999).

The skills required for teaching parents to implement an appropriate intervention with their preschool child are different from those required for professionals to implement the intervention with the child themselves (Hester & Kaiser, 1995; Alpert & Whiteman, 1995).

Some types of intervention, such as milieu language teaching, are particularly well suited for implementation by parents (Hester & Kaiser, 1995; Alpert & Whiteman, 1995). Milieu language teaching is consistent with the naturally occurring patterns of parent-child interaction. It teaches skills that are immediately functional for the child in communicative interactions with significant partners, and is designed to promote child skills that will be useful in acquiring language from other naturally occurring interactions (Hester, Kaiser, 1995; Alpert & Whiteman, 1995).

A series of studies on milieu teaching by parents (Alper & Kaiser, 1992; Hemmeter & Kaiser, 1994; Kaiser, Hester, & Hancock, 1993) has demonstrated that children learn target skills and improve their general communication abilities when their parents are taught this naturalistic language intervention. Parents trained in this model typically generalize their skills to interactions at home and show systematic maintenance of skills across time (Kaiser et al., 1993). These findings suggest that milieu teaching implemented by parents may meet the dual criteria of being acceptable to parents in the context of their roles as primary caregivers and of being an effective means of increasing children's communication skills (Kaiser et al., 1993).
In a review of parent-training studies, Dangel and Polster (1984) identified 10 strategies used by effective parent trainers to produce dependable changes in parent behaviors. These strategies included specific feedback with praise, clear directions, and use of demonstrations, modeling, and examples to show parents the desired behaviors (Dangel & Polster, 1984).

The desired parental and child behavior change should be judged within a context of what is ethically, culturally, and developmentally appropriate (Matthew & Hudson, 2001). For example, teaching parents skills to control their children’s behavior by fear would be ethically unacceptable (Matthew & Hudson, 2001). Cultural relevance of objectives also is important when working with families from varying cultural origins (Forehand & Kotchick, 1996). For example, there may be cultural differences in the extent to which behavioral techniques (such as ignoring, praise, and negotiation) are acceptable to parents of differing cultural backgrounds and expectations about the use of physical punishment may differ from culture to culture (Cheng-Gorman & Balter, 1997).

Some interventions try to change poor parenting practices into good or at least better ones. Others aim to prevent poor parenting in the first place (Dore & Lee, 1990). The terms parenting education and parent training are used interchangeably to denote a wide range of intervention models designed to enhance parents’ capacities to foster optimal child development (Dore & Lee, 1990).

The current study investigated a strategy for training novice trainers to use key parent-training strategies in teaching milieu language teaching procedures to parents (Dangel & Polster, 1984). The target skills included in this strategy were based on the limited research on training parent trainers (Dangel & Polster, 1984; Isaacs et al., 1982;
Milne, 1986), research reporting effective parent training in families of children with disabilities (Daurelle, Foy, MacLean, & Kaiser, 1987; Graziano & Diament, 1992), and clinical experiences in teaching parents to implement milieu teaching.

Effects of the intervention on trainers were examined first, then effects of the trainer on parent behavior were assessed and finally effects of changes in parental behavior on children’s communication were considered (Dangel & Polster, 1984). Acquisition of generalized training strategies by the novice parent trainers was examined by having each trainer independently teach a second parent to implement milieu teaching (Dangel & Polster, 1984). Generalized use of milieu teaching by all parents in the study was examined during home generalization probes. Child generalized use of target communication skills was evaluated during parent-child interactions at home (Dangel & Polster, 1984).

Fifteen individuals participated in the study. Three women served as trainers-in-training. Each trainer worked with a parent and his or her young child with a language delay during the primary intervention phase of the study. These parent-child dyads were referred to as primary families (Hester & Kaiser, 1995; Alpert & Whiteman, 1995).

Training sessions for the parents were conducted twice a week in one of two rooms in a research center at a university. The sessions involving trainers and parents ranged in length from 30 minutes to 1 hour. This time included a 15 minute semi-structured play session in which the parent and the child interacted using a variety of age appropriate toys of interest to the child (Hester & Kaiser, 1995; Alpert & Whiteman, 1995). Materials the experienced trainer used when training the trainer included a VCR,
videotapes of previous sessions, handouts, graphs of the trainer's behaviors, and graphs of parent-child performance (Hester & Kaiser, 1995; Alpert & Whiteman, 1995).

All the participants agreed strongly that the trainer presented information about language training to them in a clear manner. The parents believed the language targets selected for their child were appropriate and they indicated they very frequently used the milieu techniques in many situations and settings with their child. Overall, the parents were very satisfied with the training they received and wished other family members and their child's teacher could receive the same type of training (Hester & Kaiser, 1995; Alpert & Whiteman, 1995).

Impact of Parent Training Programs on Parent-Child Interactions for Children with Disabilities

Families with children are the fastest growing segment of the homeless population in the United States, making up possibly 40% of the homeless population (U.S. Conference of Mayors, 1993). Homeless parents are most often single women, with limited education and inadequate economic and social supports (Bassuk, Rubin, & Lauriat, 1986; Fox, Barnett, Davies, & Bird, 1990; Wood, Valdez, Hayaski, & Shenk, 1990). Bruder (1997) cited studies that indicate homeless women with young children show a high level of depression (Parker, Rescorla, Finkelstein, Barnes, Holmes, & Stolley, 1991) and disruptive patterns of mother-child interaction (Boxill & Beaty, 1990). Because homeless children often are denied the support of a nurturing parent, they are at dramatically increased risk of psychological and cognitive impairment (Health Care for the Homeless, 1995). Recent studies have shown that the majority of homeless children are suffering from serious developmental, emotional, and learning problems (Bassuk & Rosenberg, 1990; Parker et al., 1991; Rescorla, Parker & Stolley, 1991).
In studies comparing homeless children with poor but housed children, researchers have found that half of the homeless children manifest developmental delays compared to 16% of poor but housed children (Bassuk & Rosenberg, 1990; Rafferty & Rollins, 1989). To mitigate the deleterious effects of homelessness on children’s development, researchers and program planners are increasingly endorsing parenting programs that offer homeless parents and their children opportunities for positive interactions (Eddows, 1993; Jacobs, Little & Almeida, 1993; Memmotti & Young, 1993; Weiss, 1989).

The intervention approach used in a study to facilitate healthy parent-child interactions with a homeless population was very individualized, using direct feedback intervention (Berstein et al., 1991; Kelly, 1982; Koniak-Griffin, Verzemnieks, & Cahill, 1992; McDonough, 1995). In each of the projects, service providers used videotapes to help parents observe their responses to their young children’s behaviors and cues. They also used a parent “coaching” method to increase parents sensitivity and responsiveness to their children (Kelly, Buehlman, Caldwell, 2000).

In this study a training protocol was developed, implemented, and evaluated to prepare service providers to use this type of approach with homeless families with young children, which is a very high risk group. A highly individualized verbal-feedback approach, was implemented using videotapes of the parent’s unique interactions with their children to guide the progress of the interaction (Kelly, Buehlman, & Caldwell, 2000).

Four parent-child advocates were trained over a 20-week period. During the first 10 week training phase, advocates observed project staff members (trainers) interacting
with clients in the advocate’s caseload (Kelly, Buehlman, & Caldwell, 2000). During the second 10-week phase, trainers observed advocates implementing learned strategies with referred clients. The effects of the training was evaluated by comparing pre-and posttests of advocates’ knowledge and skill level (written self-evaluations) and observing their use of intervention strategies (videotaped observations of intervention sessions) (Kelly, Buehlman, & Caldwell, 2000). Additionally, a comparison of the pre-and posttests of six clients dyadic interactions (videotaped teaching and play episodes) to determine if parents’ behaviors with their children changed as a result of the newly trained advocates’ intervention strategies (Kelly, Buehlman, & Caldwell, 2000).

The study measured parent-child interaction during both teaching and play episodes. The teaching and play pretest occurred in the mothers’ shelter homes at the intake visit, and the posttest took place in the shelter home at the conclusion of the 10 intervention sessions (Kelly, Buehlman, & Caldwell, 2000).

The Nursing Child Assessment Teaching Scale (NCAST; Kelly, Buehlman, & Caldwell, 2000) was used to code the parent-child videotaped interaction in the pre-and posttest teaching episodes. The Teaching Scale is organized into six subscales; parent sensitivity to cues, parent response to child’s distress, parent social-emotional growth fostering, parent cognitive growth fostering, child clarity of cues, and child responsiveness to their caregiver (Kelly, Buehlman, & Caldwell, 2000).

All four parent-child advocates reported increases (from pre to post training) in knowledge and competence level about ways to provide support to parents, knowledge to children’s early interactive behaviors, and knowledge regarding how to provide feedback to parents to promote the parent-child relationship (Kelly, Buehlman, & Caldwell, 2000).
In summary, mothers and advocates were observed talking together about the general concerns and issues that mothers were having about their children or other general issues separate from the child. After the trainings, the mothers’ verbal interactions became more instructive, positive, and contingent on the parent-child interaction (Kelly, Buehlman, & Caldwell, 2000).

This study had several limitations. First, no parent-child control group or repeated measures design was in place to compare intervention effects. Second, the sample sizes were small; therefore, it was difficult to generalize to a more diverse group of professionals of high-risk dyads (e.g., child and parent’s gender, parent’s educational level, etc.) Finally, it was not a longitudinal study, so no conclusions were drawn regarding the durability of the training effects (Kelly, Buehlman, & Caldwell, 2000).

Given the limitations, however, the results of the study offer encouraging evidence that individualized training efforts are effective in changing intervention focus to include an emphasis on promoting the parent-child relationship (Kelly, Buehlman, & Caldwell, 2000). These results suggest that when train advocates employ these strategies to help high-risk parents improve their interactions with their young children, parents can improve the quality of their interactive behavior (Kelly, Buehlman, & Caldwell, 2000).

Family therapist typically envision the family system as problematic when parents identify a child’s disruptive behavior as the desired focus of treatment (Bell, 1963). One method of assisting a family is through parent training programs. These programs are primarily concerned with teaching parents ways of influencing the child’s problematic behavior through altering parent-child interaction (Mooney, 1995).
Although several approaches to parent training are available, two are most commonly researched (Mooney, 1995). The first is based on the principles of behavior modification, characterized by establishing behavioral baselines and then creating schedules of parental punishment and reinforcement directed toward modifying the child’s behavior (Mooney, 1995). The second approach in parent training uses specific curricula that advocates democratic child rearing practices (Mooney, 1995). The first, Gordan’s (1970) Parent Effectiveness Training (PET), emphasizes communication and listening skills. The second orientation represents the Adlerian philosophy, including resources such as Children: The Challenge (Dreikurs & Soltz, 1964) and Systematic Training for Effective Parenting (Step) (Dinkmeyer, & McKay, 1976).

Krebs (1986) reviewed the behavioral, Adlerian, and PET literatures. A limited number of studies with control groups were reviewed. The review indicated that Adlerian studies were better designed and showed more benefits than did behavioral and PET studies. Kreb (1986) also recommended that more comparison investigations be conducted in parent training.

In general, Dembo et al., (1985) reported that parental attitudes change was best achieved through Adlerian programs, whereas behavioral programs were most successful in decreasing the child’s targeted behavior. Because the results were considered to be mixed, no further attempt was made at integrating the diverse findings (Dembo et al., 1985).

Adlerian parent training was found to increase parental democratic attitudes (Hinkle, Arnold, Croake, & Keller, 1980; Moore & Dean-Zubritsky, 1979), and increased parental acknowledgement of the child’s right to privacy in emotional and physical
settings (Moore & Dean-Zubritsky, 1979). It also reduced parental restrictiveness, authoritarianism, and increased the child's self-esteem (Hinkle et al., 1980).

Unfortunately, results indicated an associated decrease in play with the child (Freeman, 1975) and an increase in observed parental directiveness (Moore & Dean-Zubritsky, 1979), suggesting that further training may be necessary as parents increase personal involvement with their children. It also appears that an informal group discussion of parenting alternatives is not as effective as a formal presentation of Adlerian philosophy (Freeman, 1975).

Children with Attention-Deficit Hyperactivity Disorder (ADHD) demonstrate developmentally inappropriate degrees of overactivity, impulsiveness, and inattention (Danforth, 1998). A significant proportion of children with ADHD also has behavior characteristic of Oppositional Defiant Disorder (ODD) (Biederman, Newcomb, & Sprich, 1991). Parent training research for families with ADHD children usually targets externalizing conduct problems (Danforth, 1998). However, ADHD children in the parent-training research are rarely identified as having ADHD and ODD. In group studies that included children with ODD, less than half of the participants had ODD (Anastopoulos, Shelton, DuPaul, & Guevremont, 1993; Strayhorn & Weldman, 1989).

The only parent-training research using children explicitly diagnosed as ADHD/ODD with direct observation documenting change in parenting behavior was a pair of experiments conducted by Pisterman et al. (1989, 1992) who evaluated the outcome of parent-training programs described by Barkley (1981) and Forehand & McMahon (1981). The outcome of these studies is modest. At posttreatment and 3-month follow-ups compliance ratios ranged from 49.5% to 60%. This is consistent with
previous research suggesting that most hyperactive children remain in the clinically deviant range (Forehand, 1977) after treatment (Pelham & Hinshaw, 1992). It remains to be demonstrated that parent-training programs for families of children with ADHD and ODD are sufficient to modify parent and child behavior (Graziano & Diament, 1992).

Most parenting programs propose that when children have ADHD, typical parenting approaches are not effective (Barkley, 1998). Consequently, parents are taught about the importance of consistency, follow-through, and using behavior management techniques (Barkley, 1989). These programs also frequently discuss the importance of spending quality time with children, having parents choose their battles and dealing with school-related concerns (Barkley, 1989).

Infant development programs provide service for families of infants with developmental delays, or who are at-risk of developmental delays, due to established deficits (e.g., genetic conditions), biological factors (e.g., extreme prematurity), or environmental factors (e.g., poverty, parenting concerns) (Niccols & Mohamed, 2000). Currently, the standard intervention involves home visiting and a family-centered approach incorporating parent support and education (Niccols & Mohamed, 2000).

Using attachment theory as a framework, an 8-week parent-training group was developed called the Skill Building Group (Niccols & Mohamed, 2000). The Skills Building Group primary goal is to improve parent-child interaction in order to foster infant attachment security (Niccols & Mohamed, 2000).

As a group, parents who participated in this study were mixed in terms of age, socioeconomic and cultural status, and psychiatric and cognitive functioning (Niccols & Mohamed, 2000). Pilot study participants attended an average of 7.5 of the 8 sessions.
Their infants were an average of 1 year old, and one third to one half were described as difficult and receiving additional services from medical and developmental specialists (Niccols & Mohamed, 2000). In terms of primary diagnosis, 7 (42%) of the infants had developmental delays of unknown etiology, 4 (24%) had cerebral palsy, 3 (18%) Down syndrome, 1 (6%) an acquired brain injury, 1 (6%) visual impairment, and 1 (6%) had prenatal drug exposure (Niccols & Mohamed, 2000).

Overall, parents in both the intervention and comparison groups reported high levels of distress prior of the Skill Building Group. This is consistent with studies demonstrating that parents of children with developmental delays experience high levels of stress and feelings of guilt, sorrow, pity and depression (Beckman, 1983; Emde & Brown, 1978).

All pre-post differences were in the predicted direction for the intervention group (i.e., showing improvement after the Skill Building Group), with three of five t-test results reaching statistical significance (i.e., those assessing decreases in parent-child dysfunctional interaction, parental distress, and depression) (Cohen, 1988). The intervention group showed improvement in their scores which ranged from one fifth to two thirds of a standard deviation in size (Cohen, 1988).

In general, participants reported that they highly valued the Skill Building Group: 88-100% said that they would recommend it to others, found the content relevant, the quality good or excellent, and the logistics satisfactory (Niccols & Mohamed, 2000). Effectiveness also was highly rated: More than 90% of the parents reported better interactions with their baby and other children in the family; having become better at problem-solving and more confident in reading their baby’s cues. Parents also increased
their knowledge about early development, at-risk infants, their own baby, and community resources (Niccols & Mohamed, 2000). This study design and analyses were limited by the small and uneven group sample sizes. Thus, it should be viewed as exploratory and interpretation of findings made cautiously (Niccols & Mohamed, 2000).

In response to the extensive and pervasive needs of children with autism, many services delivery programs have used models that emphasize parent training (Koegel, Schreibman, Johnson, O’Neill, & Dunlap, 1984), and early intervention (Anderson, Avery, DiPietro, Edwards, & Christian, 1987). Despite the considerable success of many of these programs (Anderson et al., 1987; Lovaas, 1987), both clinical experience and objective data suggest that not all children and families derive similar benefits from such interventions. However, little research on differential outcomes has been conducted in the area of autism (Robbins, Dunlap, & Plienis, 1991).

Twelve children (11 boys and 1 girl) and their mothers participated in a study called the Preschool Training Project (PTP). PTP is a federally funded demonstration program located at Marshall University in Huntington, West Virginia (Krug, Arick, & Almond, 1980). All the children were referred to the program because they exhibited developmental delays and behavioral characteristics typical of autism (Krug, Arick, & Almond, 1980).

At admission, the children ranged in age from 29 to 52 months, with 11 of the 12 children functioning in the moderate or severe range of cognitive impairment. Of the 12 participating children, 8 had been formally diagnosed as having autism by an agency not affiliated with the PTP (Krug, Arick, & Almond, 1980). Throughout this early part of training, the child’s parent(s) observed the training process and received information
from program staff on instructional techniques (Koegel & Schreibman, 1982) and behavior management strategies (Baker, Brightman, Heifetz, & Murphy, 1976). The program emphasized skill development, especially in the area of communication, and proactive strategies designed to prevent (rather than punish) behavior problems (Dunlap, Johnson, & Robbins, 1990).

As training progress, the parents worked directly with their children under the supervision of project staff (Robbins, Dunlap, & Plienis, 1991). Short instructional sessions were videotaped for later review. Staff members provided direct instruction, modeling, and feedback based on parent performance (Robbins, Dunlap, & Plienis, 1991). By the end of the initial phase of training, parents were conducting virtually all of the training sessions with their children (Robbins, Dunlap, & Plienis, 1991).

The Learning Accomplishment Profile (LAP) (Sanford & Zelman, 1981) or the Early-Learning Accomplishment Profile (E-LAP) (Glover & Sanford, 1978) was used to derive the primary dependent variable for this study. Results of the study showed that improvement was evident for most of the participants and that the mothers of the High Improvement children tend to demonstrate greater competency (and greater improvement) than the mothers of the Low Improvement children (Robbins, Dunlap, & Plienis, 1991).

Data from the Child Domain of the Parenting Stress Index (PSI) provided confirmation that children with autism are a significant source of stress for the children’s mothers (Bristol, 1979; Koegel et al., 1991). In this sample all of the mothers reported high levels of child-related stress (Bristol, 1979; Koegel, et al., 1991).
The results of this investigation may also have important messages for the delivery of services for children with autism and their families (Robbins, Dunlap, & Plienis, 1991). A principal implication is that families differ, and therefore, family services should be individualized as child programming (Robbins, Dunlap, & Plienis, 1991). While parent-training programs have clearly documented effectiveness for some families, not all participants benefit in the same ways (Koegel et al., 1984).

One of the most critical concerns in child welfare is meeting the needs of infants with prenatal substance effects (Burry, 1999). An estimated 11% to 14.8% of infants in the United States test positive for illicit drugs at birth (Chasnoff et al., 1990; Kantrowitz, 1990). Many researchers believe that the incidence of substance abuse among pregnant women and the subsequent numbers of substance-affected births are increasing and will continue to increase in the future (MacGregor et al., 1987; Weston et al., 1989).

A training program offered to foster parents included context designed to enhance foster parents’ knowledge and skills about fostering infants with prenatal substance effects (Cutrona & Troutman, 1986; Hoover-Dempsey et al., 1992; Swick, 1988; Rodrique et al., 1990; Teti & Gelfand, 1991; Teti et al., 1990).

The research hypothesis in this study were tested by a pretest-posttest nonequivalent comparison group design (Burry, 1999). The treatment group received the specialized foster parent training and the comparison group was tested while attending televised foster parent training programs on other topics (Burry, 1999).

Foster parents in both the treatment and control groups appeared to enter training with relatively high feelings of efficacy about fostering and about fostering substance-affected infants (Burry, 1999).
It appears that the specialized training did influence the attainment of four specific skills that have been found to be useful in caring for infants with prenatal substance effects, as well as the attainment of knowledge about these infants (Burry, 1999).

The review of the literature indicated that lack of social support is related to foster parent burnout (Burry, 1999). The foster parents in this study generally did not indicate a high need for support, but had support available. Foster parents were mostly satisfied with the support they did have prior to entering a training is promising in terms of the potential for lowered burnout among these foster parents (Burry, 1999).

Overall study results indicate that the specialized training on fostering infants with prenatal substance effects met at least two of the goals set for the training. That is, the training did appear to influence skill and knowledge attainment (Burry, 1991). Although the training goals for increasing efficacy, social support, and intent to foster were not achieved, it appears that there were some positive findings in these three areas (Burry, 1991).

Even though it was similar in selected characteristics to the control group, the subject was small, possibly limiting the study’s generalizibility. Also, this study suggests areas of future research. As the knowledge base on infants with prenatal substance effects expands, future training will need to be updated to keep it state of the art (Burry, 1991).

**Summary**

In the field of early childhood special education, there is a substantial amount of research on parent-child interactions in which the child is disabled or at risk for developmental delays. These studies indicated that atypical patterns of interaction occur
frequently between children with disabilities or at risk of developmental delays and their parents. The pattern of interaction traits includes unclear signals, controlling behavior, and unresponsiveness. Parent-child interaction also demonstrates an association with the child, parent and family factors. This includes the child’s diagnosis, age, developmental status, parent’s educational level, and parental stress and social support.

The impact of parent-training programs on parent-child interactions with both typical and disabled children has been emphasized in research (Mahoney & Robinson, 1992). Families who are in need of parenting education often live in highly stressful environments plagued by poverty, substance abuse, as well as inadequate resources for housing, education, and employment. In addition to child management skills training based on behavioral principles, cognitively oriented components such as stress management, problem-solving, and developmental education are important aspects of parenting programs.

The objective of a parent-training program is the prediction of outcomes for the child and the parent. Parent training programs overall, were found to be successful if the training included modeling, role-playing, written materials, discussions, and videotaping sessions for the purposes of immediate feedback.

There is a lot of research in the area of parent-training programs, which impact parent-child interactions. Unfortunately, there are not many studies conducted to specifically target an African-American population in urban communities. There is a need to provide parent-training programs for parents of children with disabilities. The present study will provide parent training for minority mothers who have limited knowledge about child development in an urban community.
Chapter 3

Method

This chapter describes the participants of the study, setting, research design, observation procedure, training procedures, training materials, and measurement.

Participants

Children. The study was conducted at a Head Start program located in a Northeast state of the United States. Three children, 2 males and one female participated in the study. They were 3 years of age and eligible for early intervention services due to a 25% delay in speech and language according to the state’s policy. The participating children have Individualized Education Plan’s (IEP’s). The Developmental Assessment for Young Children (DAYC) was the assessment tool used to determine eligibility for services. The participating children came from single parent and nuclear families (See Table 1).

Parents. Three parents, together with their children, participated in the study. They were female. Two of them live in close proximity of the Head Start program. One participating parent is actively involved with the parent association and volunteers her services on a weekly basis. She is the lead parent advocate at the preschool. The other participating mothers attend monthly parent meetings at the preschool. Table 2 presents their general information.

The participation was voluntary, which included involvement in a series of parent training education classes and parent-child playgroup sessions. The recruitment procedure used was to distribute an introduction letter to parents describing the nature of
the study, the importance of the study, and permission to conduct the study (See Appendix A). The program director distributed the consent letter to parents. Responses were received within a few weeks, and the number of participants involved in the study was determined by their willingness.

Table 1

General Information of Participating Children

<table>
<thead>
<tr>
<th>Children</th>
<th>Age: Year/Month</th>
<th>Month/Year Child Attended Head Start Program</th>
<th>Family Condition</th>
<th>Number of Siblings</th>
<th>Number of Siblings with Disabilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3.3</td>
<td>2 months</td>
<td>Single</td>
<td>7</td>
<td>2</td>
</tr>
<tr>
<td>2</td>
<td>3.2</td>
<td>1.5 months</td>
<td>Nuclear</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>3.8</td>
<td>7 months</td>
<td>Nuclear</td>
<td>3</td>
<td>0</td>
</tr>
</tbody>
</table>

Table 2

General Information of Participating Parents

<table>
<thead>
<tr>
<th>Parents</th>
<th>Age Range</th>
<th>Education</th>
<th>Employment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Between 30-45</td>
<td>High School Graduate</td>
<td>Unemployed</td>
</tr>
<tr>
<td>2</td>
<td>Between 30-45</td>
<td>High School Graduate</td>
<td>Unemployed</td>
</tr>
<tr>
<td>3</td>
<td>Between 30-45</td>
<td>High School Graduate</td>
<td>Employed</td>
</tr>
</tbody>
</table>

Setting

The study was conducted in a classroom where the children interacted with their peers on a daily basis. The parent training sessions were conducted in a conference-style meeting room. The chairs were positioned around a table, where all the participants had full view of the facilitator as well as the other group members. The parent-child playgroups were videotaped with a camcorder. Parent and child behaviors were observed and recorded. The parents and their children were observed during freeplay over a series
of 1½ weeks. During the training sessions, the participants discussed various parenting topics and shared both positive and negative experiences. As the facilitator, I guided the direction of the discussions and provided information on the topics.

**Research Design**

A single subject design across paired parent and her child was used in this study. The baseline data was collected for 3 days and parent-child interactions were observed. Parent training sessions lasted for 2 days then subsequent observations were conducted during intervention for 5 days. The 5-day observations allowed me to obtain accurate data. Each parent-child play session was videotaped over a series of 1½ weeks. A comparison of parental and child behaviors with several dyadic interactions (videotaped teaching and play episodes) determined if parents' behaviors with their children were changed as a result of the parent training.

**Training Materials**

Training packages were provided to the parents during each training session. There were 2 packages including information on developmental stages, practical discipline techniques, and guidelines for effective communication methods. The first training package gave an overview of practical discipline techniques with recommended readings. The second training package included a handout, which gave a description of developmental guidelines from 2 to 5 years old. Guidelines for effective communication styles with recommended readings were provided as handout materials. The age-appropriate materials were provided to the participating children in the classrooms during the observations. These included children’s literature books, a sand table, counting bears,
puzzles, building blocks, crayons, markers, playdough and water colors (See Appendix B).

**Observation Procedures**

Baseline data was collected for 3 days. Parents and their children during freeplay activities were observed with a total of 5 parent-child interactions in the children’s natural environment. A video recorder was used to tape the observation of joint attention, mutual enjoyment and reciprocity during foreplay. Each parent-child interaction was observed for a total of 10 minutes. The parental behavioral patterns and affective involvement including non-verbal interaction (e.g., looking, smiling, and touching) and verbal interaction (e.g., directive/controlling, praising) were observed. The freeplay sessions permitted the assessment of parent’s capacity to interact with their children, enjoy their children, and follow their children’s abilities to take turns, share, and respond to their children’s reaction.

**Training Procedures**

The parent training sessions lasted for 2 days. The topics discussed were managing difficult behaviors, effective communication styles, child development, and the value of play. The parents were given the opportunity to participate in discussions, ask questions, and give appropriate feedback (See Table 3).

**Measurement Instrument**

An observation checklist was used as the measurement instrument for the study. The frequency of behavior occurrences was recorded. The reliability was checked between 2 observers over specific time intervals. The time frame was in 10-minute intervals to tally daily behaviors of parents and their children. A total of behavior
occurrences were calculated (See Table 3). A questionnaire was given to the participating parents at the end of the study with a total of 10 questions. The parents were required to self report their responses according to the questions (See Appendix C).

**Observation Reliability**

Two adults were present to observe behaviors during the parent-child interaction to ensure the observation reliability. The formula: Agreement + Disagreement/Total Observation x 100 was used. In addition, each observation session was videotaped to ensure the behavior occurrence.

**Table 3**

**Observation Checklist**

<table>
<thead>
<tr>
<th>Child: __________________________</th>
<th>Parent: __________________________</th>
</tr>
</thead>
<tbody>
<tr>
<td>Observer: ______________________</td>
<td></td>
</tr>
</tbody>
</table>

#1 Target Behavior: Verbal Interactions: praising, giving directions or instructions, etc.

#2 Target Behavior: Nonverbal Interactions: looking, smiling, touching, etc.

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Notations of Occurrences</th>
<th>Total Occurrences</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Start - Stop</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 3
Training Procedure

<table>
<thead>
<tr>
<th>1st Parenting Session</th>
<th>2nd Parenting Session</th>
<th>3rd Parenting Session</th>
<th>4th Parenting Session</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Ask group for its definition of discipline. Reinforce the ideas that are accurate. Place emphasize that discipline means teaching and guidance.</td>
<td>• Read a short example of a negative interaction between a parent and a child. • Ask group members why communication style is not effective. • Give examples of different ways that are most effective when communicating with young children. • Do “What would you do if” exercise with the group.</td>
<td>• Give explanation of the following: physical/motor development; cognitive development; language development; various types of play. • Handouts will be given out to accompany the lecture on the above items listed.</td>
<td>• Ask question to group, “What is the value of play?” • Discuss and expand on items people in the group mention. • Ask each person to tell the group at least one type of play their child/children enjoys at home or school. • Give examples of play activities that are educational. Ask for additional feedback from the group. • Discussions on creating free and inexpensive play opportunities. Place emphasize on the importance of age-appropriate toys.</td>
</tr>
</tbody>
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Chapter 4
Results

Observation
Figure 1 presents parent and child’s verbal and nonverbal interactions during phases.

Verbal and Nonverbal Interactions

Pair #1
Baseline
Intervention

Days of the Week

Frequencies

- parent verbals
- child verbals
- parent nonverbals
- child nonverbals

Verbal and Nonverbal Interactions

Pair #2
Baseline
Intervention

Days of the Week

Frequencies

- parent verbals
- child verbals
- parent nonverbals
- child nonverbals
During the baseline, parent-child interactions varied over a three-day period. Verbal and nonverbal interactions between parents and their children decreased from the first day to the second day, but showed an increase by the third day. After parent training was implemented, parent-child interactions were observed during the intervention phase. The trend showed an accelerated increase in parents’ verbal interactions and two out of three parents had accelerated increases in nonverbal interactions. Overall, the trend illustrated a deceleration of children’s nonverbal interactions. Of the 3 pairs, only one pair showed an increased trend of child’s verbal interactions.
Self-Reported Survey

A questionnaire was used to obtain background information from the participating parents. The responses were summarized into four themes: 1) children’s activities, 2) parent’s interaction with their children, 3) strategies used to manage their children’s behavior, and 4) areas of needs.

The parent questionnaire had four questions that focused on children’s activities. In response to questions about children’s favorite activities, children’s least favorite activities, signals children display when feeling frustrated, and skills exhibited during unstructured play, parent responses were as follows:

- For children’s favorite activities - one parent stated drawing; another parent stated eating lunch; and the other parent stated playing with toys.
- For children’s least favorite activities – two parents’ responses were sitting in circle time for a long period of time; the other parent’s response was watching television for a long period of time.
- For signals children display when feeling frustrated – one parent stated screaming; another parent stated temper tantrums; and the last parent stated aggressive behavior.
- For skills children exhibit during unstructured play – one parent stated sharing; another parent stated taking toys from other children; and the last parent stated turn taking.
In response to questions about parent’s favorite activities with their children and the amount of times stories are read to children, parents’ responses are as follows:

One parent answered eating dinner was a favorite activity, another parent stated spending the day at Chunky Cheese, and the other parent stated going to church was a favorite and enjoyable activity.

Sometimes, rarely, and often were the parent responses to the question “how often are stories read to your child at home”?

In response to questions about discipline techniques, parent responses were as follows: time out and ignoring behavior are forms of discipline used by one parent, taking away privileges and corporal punishment were responses by another parent, and warnings was a response by a 3rd parent.

In response to whether parents agreed, disagreed, strongly agreed or strongly disagreed to the statement: Time out is the most effective method of discipline – one parent disagreed, and two parents strongly agreed.

In response to the statement: Preschool years are a period of rapid language growth and development – all three parents agreed.

In response to the statement: Freeplay is a time for children to do whatever they wish, without receiving directions from a teacher or parent – two parents strongly disagreed and one parent strongly agreed.

Parents’ Attitudes

The participating parents of the study showed great relish for acquiring additional information about child development and discipline. Out of the four topics discussed during the parent training sessions, managing difficult behavior was the area that sparked
the most interest. They stressed a desire to learn alternative methods for disciplining their children, which is an area that has been a challenge for all three parents. The parents were eager to spend quality time to do fun activities with their children. The parents stayed additional time in their child’s classroom after the observations were finished. During the parent training sessions, the parents actively participated in the activities, sharing their experiences on raising children and discussing various communication strategies that were both successful and unsuccessful.
Chapter 5

Discussion

The purposes of this study were to provide parent training in an urban community and to examine effects of training on parent-child interactions during freeplay. Parent-child interactions were observed. Three parents volunteered to participate in the study, where they interacted with their children in various unstructured freeplay activities in their natural environment for a total of 8 days. According to the trend in each intervention phase of all three parents, parent verbal interactions increased after the parent training.

Parent-Child Interactions

Pair #1: After parent training was implemented, parent verbal interactions increased as the week progressed. Parent’s nonverbal interaction showed steady increases over the 5-day intervention period.

Pair #2: After parent training was implemented, parent verbal interactions increased as the week progressed. Parent nonverbal interactions decreased on the 2nd and 3rd day, but increased on the 4th and 5th day.

Pair #3: After parent training was implemented, parent verbal interactions increased for the first three days, decreased on the 4th day, and showed a significant increase on the last day of intervention. Parent nonverbal interactions showed low frequency for 4 days of intervention, but showed an increase on the last day of intervention.
**Child’s Verbal and Nonverbal Responses:**

Pair #1: After parent training was implemented, child verbal and nonverbal interactions showed steady increases except one decrease over the 5-day period.

Pair #2: After parent training was implemented, child verbal and nonverbal interactions decreased on the 2\textsuperscript{nd} and 3\textsuperscript{rd} day, increased on the 4\textsuperscript{th} and showed a decrease on the 5\textsuperscript{th} day of intervention.

Pair #3: After parent training was implemented, child verbal and nonverbal interactions fluctuated, showing inconsistent occurrences over the 5-day intervention period.

The participating children were classified with speech and language delays. This may have had an impact on the overall number of child verbal responses with all three pairs of children.

**Parents’ Attitudes**

From the survey I found that the participating parents had limited information about such topics as child development, discipline, and communication strategies. Additional information was given to these mothers due to their willingness to learn more about topics that enhanced their awareness on child development and parent-child relationships. The parent training sessions also gave parents additional information about ways to cope with their children’s disabilities. Parents showed an interest in acquiring information on ways to improve their children’s verbal and language skills.

**Limitations and Recommendations**

A major limitation of the study was the size of the sample. First, the sample size of 3 pairs was too small to generalize the results. Second, it was not a longitudinal study
thus; no conclusions could be drawn regarding the durability of the training effects.

Third, during the observations, there were some distractions, such as the presence of the camcorder and other parents and children in the same room. Finally, a significant challenge that occurred in the beginning stages of the study was finding parents who were willing to participate in the study. My first attempt was unsuccessful at an early intervention program, where the parents were uncommitted to be observed over an extended period of time.

The findings of the present study showed a trend of accelerated increases in parents' verbal interactions. Two out of three parents had accelerated increases in nonverbal interactions a result of the parent training. The results are consistent with those of Kelly, Buehlman, & Caldwell's study (2000). That is when the trainer employ strategies to help parents improve their interactions with their young children, parents can improve the quality of their interactive behavior. However, Freeman’s results (1975) indicated an associated decrease in play with children directiveness, suggesting that further training may be necessary as parents increase personal involvement with their children.

Future research may be needed to replicate the present study with a larger sample and a longer duration. Follow-up observations could have been recorded for an additional week after the intervention to see if parent verbal and nonverbal interactions with their children would stably increase.

This study was conducted with an African-American population in an urban community. Although it was a short time period, the parents showed their eagerness for training and learning skills. Future research should be encouraged and conducted for
minority parents and young children, primarily in African-American and/or Hispanic communities.

In conclusion, parents benefit from a training to understand parent-child interaction and to learn skills. As a result of early intervention and parent training, children with disabilities have a higher chance of success in school. Parent training is necessary, especially for minority parents in urban communities.
References


Dear Parents,

I am a graduate student at Rowan University and working towards my master’s degree in Special Education. I am in the process of completing my thesis project. My topic for the thesis project is the effects of parent training on parent-child interactions in urban communities.

You and your child are being asked to participate in a study involving a parent education training program along with participating in freeplay sessions doing various fun activities with your child. Some of the various topics of the parent education group will be child development, managing difficult behaviors, effective communication strategies, and the value of play. The parent-child activities during the freeplay sessions will be videotaped in order to observe you and your child’s interaction. This videotape will only be used for data collection for my thesis and will be destroyed after the observations are reviewed.

I am interested in determining how parent training programs impact on the relationship and interactions between parents and their children. The various topics that will be discussed during the study will enhance your knowledge and understanding about your child/children’s development. It is hoped that the results of this study can be useful in helping parents gain additional information about healthy child development. The data will be used for evaluating the effectiveness of a parent training program and its impact on parent-child interactions.

All the information regarding the program will be confidential, and the data will be interpreted as a group without exposing any individual’s name in the thesis. If you and your child would like to participate in this study, please kindly sign the permission form at the bottom of the letter. If you have any questions regarding this matter, please feel free to contact me at (215) 222-6088. Thank you very much.

Sincerely,

Mrs. Christina Lewis

I, ____________________________, will participate in the parent education program and parent-child freeplay sessions with my child, ____________________________

(child/children’s name)

Parent’s Signature ____________________________ Date ______________
APPENDIX B

TRAINING MATERIALS (1)

Topic 1 – Managing Difficult Behavior

Handout – Practical Discipline Techniques:

- **Role modeling.** Children learn about behaviors by watching adults.
- **Attention-Ignore.** Catch them being good. Children repeat behaviors that get attention; they give up behaviors that get no attention.
- **Charts and rewards.** If not overused, the chart posted on the refrigerator (or elsewhere) can help establish good behavior patterns.
- **Setting limits.** Children need to know where the limits are and that the limits stay the same all the time. They feel secure when they know where the boundaries are.
- **Consequences.** Allowing the child to experience the consequences of his or her actions.
- **Time out.** Select and prepare a time-out area. This area should be quiet and free from stimulation. Select one behavior that must be eliminated and explain time out to the child. Time out should be a last resort, used to help children regain control over themselves and not to punish.

**Recommended Readings:**

- Kids can cooperate by Elizabeth Crary.
- Pick up your socks...and other skills growing children need by Elizabeth Crary.
- Without spanking or spoiling by Elizabeth Crary.
- How to talk so kids will listen, and listen so kids will talk by Elaine Mazlish and Adele Faber.
TRAINING MATERIALS (2)

Topic 2 – Effective Communication Styles

Handout – Guidelines for effective communications styles
- Get your head physically on the same level as the child’s.
- Look directly at the child – make eye contact.
- Your voice should have a tone of firmness – not very angry, pleading or whining.
- Notice your body language. Your whole body should say, “I’m serious and I expect you to comply.”
- Give clear and consistent instructions.
- Use positive directions instead of negative.
- Allow children to make choices appropriate to their age level.

Topic 3 – Child Development
Handout – Developmental Guidelines: What to expect
At developmental age of 2 years, your child may begin to:
- Ask for things at the table during mealtime.
- Obey simple directions.
- Frequently say “no” but will finally cooperate.
- Tell his or her first name when asked.

At developmental age 3 years, your child may begin to:
- Take turns with toys.
- Follow two-part instructions such as “Go to the bathroom and wash your hands.”
- Speak in complete sentences (may make some errors)
- Hold pencils or crayons to write or draw.

At developmental age 4 years, your child may begin to:
- Trace at least two simple shapes (circle, square).
- Show fear in new situations.
- Have several friends.
- Count five to ten objects.

At developmental age 4 ½ - 5 years, your child may begin to:
- Identify and write several letters of his or her name.
- Retell a favorite story.
- Trace the letters of the alphabet.
- Start a conversation upon meeting friends.

Age appropriate materials used during the observations included: children’s literature books, a sand table, counting bears, puzzles, building blocks, crayons, markers, playdough, and water colors.
APPENDIX C

PARENT QUESTIONNAIRE

Parent’s Name: _____________________________
Date: ________________________________

Directions:

Please respond to each of the following questions. Return the completed questionnaire by March 19, 2002.

1. Describe the most enjoyable activity between you and your child?

2. What is your child’s favorite activity in school?

3. What was your favorite activity as a child – at home and/or school?

4. How often do you read stories to your child? (Circle your response)
   Often  sometimes  rarely  not at all
5. What are the least favorite activity your child enjoys at home and/or school?

6. What signals or cues does your child display when he/his is feeling frustrated?

7. During an unstructured play environment, what skills does your child exhibit the most? (Mark all that apply)
   - [ ] Sharing
   - [ ] Turn-taking
   - [ ] Independence
   - [ ] Creativity
   - [ ] Other (describe)

8. What area of child development do you feel you need more information about? (Mark all that apply)
   - [ ] Language Development
   - [ ] Cognitive Development (The ability to understand concepts)
   - [ ] Fine Motor Development
   - [ ] Gross Motor Development
   - [ ] Self Help Skills

9. Describe what discipline techniques are most often used to correct undesirable behavior displayed by your child at home?

10. Indicate the extent to which you agree or disagree with each of the following statements. (Mark one response for each item)
Strongly agree  Agree  Disagree  Strongly disagree
4 3 2 1

A. Time out is the most effective method of discipline. ______

B. Preschool years are a period of rapid language growth and development. ______

C. During freeplay, children are free to do whatever they wish with whatever materials they want and without any direction from a teacher or parent. ______