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THE QUALITY OF THE FAMILY DAY CARE SETTING AND ITS EFFECTS
ON CHILDREN'S SOCIAL AND COGNITIVE PLAY BEHAVIORS

A Thesis
Presented to the
Faculty of
California State University,
San Bernardino

In Partial Fulfillment
of the Requirements for the Degree
Master of Arts
in
Psychology: Life-Span Developmental Concentration

by
Hollie Rae Prill

June 1998

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Approved by:



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Abstract

This study focused on the quality of the family day care setting and its effects on children's social and cognitive play behaviors. Forty-eight male and female children between the ages of two and five who have been attending day care in a licensed family day care home were included in the study, along with their family day care providers and parents. It was hypothesized that children who attend high quality family day care environments (i.e., including space and furnishings for care and learning, basic care, facilitation of language and reasoning, learning activities, facilitation of social development, and attention to adult needs) would engage in higher levels of social and cognitive play (i.e., higher levels of associative play, cooperative play, constructive play, dramatic play, and games with rules). It also was expected that those children who attend low quality family day care homes would engage in higher levels of non-social play (i.e., more unoccupied behavior, onlooker behavior and solitary play) and would display lower levels of social and cognitive play (i.e., higher levels of parallel and functional play). Furthermore, it was hypothesized that parents' greater satisfaction with their child's family day care would be associated with higher levels of the

children's cognitive and social play (i.e., higher levels of associative, cooperative, constructive and dramatic play as well as games with rules). Researchers conducted naturalistic observations of the children's social and cognitive levels of play in the family day care home, using Higginbotham, Baker and Neill's (1990) Free Play Classification Scale. The quality of the family day care home was assessed using Harms and Clifford's (1989) Family Day Care Rating Scale (FDCRS). Family day care providers and parents of child participants also were asked to complete a questionnaire to obtain background information. Results indicated that space and furnishings were significant predictors of children's cognitive play (such that higher quality furnishings and more ample space in the family day care home was positively associated with a greater frequency of constructive play). Moreover, higher quality basic care (i.e., diapering and toileting procedures) in the family day care was significantly, positively related to constructive play and, unexpectedly, to onlooker behavior, which is when a child stands at the periphery of groups and activities, within hearing and speaking distance of the other children, making comments but not being actively involved. Language and reasoning in the family day care home was significantly, negatively related

to unoccupied behavior, which is characterized when the child wanders aimlessly without focusing on any activity. Parents' overall satisfaction with their child's family day care home also was significantly, negatively related to solitary play. Discussion of the findings focuses on the importance of space and furnishings in the family day care home as well as implications for further research.

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Chapter One

Introduction

In today's society, there are a growing number of women returning to work soon after the birth of their children. As a result, many young children are cared for during the day by someone other than their mother (Baydar & Brooks-Gunn, 1991; Belsky, 1992; Belsky, 1980). One of the greatest sources of stress for working mothers is finding affordable, quality child care for their children (Hoffman, 1989). There are a number of child-care options available to working parents. One common form of child care is the family day care home, which can be, in many cases, the most available and affordable option for families (Frankel, 1991). Most family day care providers can accommodate a parent's need for flexibility in weekly schedules and many family day care providers can provide child care in the evening hours and are willing to take children who are sick. Furthermore, many family day care homes tend to be less expensive than most child care centers (Frankel, 1991).

Unfortunately, little is known about the effects of the family home day care on children's development. This may be due to the fact that there may be a large number of "underground" or non-regulated and unlicensed day care homes operating across the United States. Therefore, research

that does exist on family day care often is based only on a small sample of regulated homes (Frankel, 1994). Taking this information into account, according to Frankel (1994) a 1990 National Child Care Survey of children with employed mothers reported that 22% of children under age 3 and 17% of children ages 3 to 5 were in family day care; 20% under age 3 and 43% between the ages of 3-5 were in center care; and 53% under age 3 and 37% ages 3-5 were taken care of by a parent or other relative. Again, because of the large number of non-regulated or unlicensed family day care homes, it is difficult to assess how many parents are actually utilizing this form of care, and unfortunately, research findings on day-care centers and on regulated family day care homes cannot be generalized to these unregulated homes (Frankel, 1994).

Most studies of family day care have focused on the comparison between this type of child care and other types of care, such as center-based care or in-home care with a relative. Fewer studies have examined the quality of the family day care home itself. In order to obtain a better understanding of the influences of child care, and in particular, the influence of family day care on children's development, we need more consideration of quality issues in the child care literature. One way of addressing this is to

look at the influence of quality in the family day care setting on a particular area of development, such as children's play behaviors. This current study will focus on the quality of the family day care setting and its influence on children's social and cognitive play behaviors.

The Importance of Examining Quality in the Family Day Care Home

In family day care, a caregiver offers child care in his or her own home. In the state of California, the Department of Social Services Licensing (1995) regulations usually allow no more than eight children (including the caregiver's own children) per adult caregiver. A "large" family day-care home is licensed to take up to fourteen children (including the caregiver's own children), provided that the caregiver has a background in child development or early childhood education and has another adult available for the additional six children.¹ Training and experience of these caregivers varies, and therefore, the physical environment, daily activities, and experiences of the children in this type of care will vary. Although there is variance in the quality of child care, early studies of child care settings focused on the advantages or disadvantages of different types of child care for children's social and cognitive development. That is,

researchers emphasized between-setting issues rather than discussing the quality within a particular child care setting, like the family day care home.

A Brief Summary of Studies Comparing Different Types of Child Care Settings (The "Between-" Setting Studies)

Some examples of these between-setting studies are Clarke-Stewart's (1984) and Clarke-Stewart and Gruber's (1984) research concerning the advantages and disadvantages of child care arrangements for children's social and cognitive development. Participants in these studies were two- to four-year-old children who attended six different child care arrangements which included care at home by parents, care by a sitter in the child's own home, care in a family day care home, part-time care in a center or nursery school, full-time care in a center, and part-time care in a center with a part-time sitter at home. Participants were observed at home and in their child care setting and an assessment of their social skills was obtained in a laboratory playroom. The children were given standard assessments of their social, emotional, and cognitive development (Clarke-Stewart, 1984). Results indicated that there were no significant differences in social and intellectual skills or social relationships among children in different home-based care arrangements (i.e., care at

home by parent, care by sitter in child's home, care in a family day care home), and no significant differences among children in different center-based care environments (part or full-time center-based care or nursery school). However, the children who attended center-based care performed at higher levels than children in home-based care (Clarke-Stewart, 1984).

Based on the results from the 1984 studies, Clarke-Stewart (1991) has suggested possible reasons for the observed difference in levels of cognitive and social development between the children who attended home-based vs. center-based care. She suggests that there are differences in the amount, the type, and the quality of the attention and stimulation provided, as well as pre-existing differences in the individual children and their families, for home-vs. center-based care settings. Clarke-Stewart (1991) suggested that a child care center may emphasize educational activities and experiences, there may be more stimulating educational materials, and there may be a larger variety of adults and children. Taken together, these aspects are similar to a school setting that may facilitate social skills and intellectual competence. Clarke-Stewart's findings and suggestions have negative implications for family day care settings. This current study, however, will

attempt to show that family day care homes that provide a high-quality program similar to those found in higher-quality child care centers also will facilitate children's higher-level social and intellectual skills.

Child Care and Children's Development: An Introduction to the Issue of Quality

Recently, researchers have been utilizing Bronfenbrenner's (1979) ecological model which suggests that there are interrelated social systems of which families and children are a part. According to this model, there are a number of factors that may directly or indirectly influence a child's development such as the child's temperament, the child's immediate family environment, and the child's culture and society. Therefore, in order to fully understand a child's development and behavior, we must consider a number of possible influences on these outcomes. One such influence on development is the child care setting.

Researchers, therefore, have attempted to use Bronfenbrenner's model to help understand the possible influences of child care on a child's development (Belsky, 1980; Bronfenbrenner, 1986; Kontos, Hsu & Dunn, 1994; Wandersman, 1981).

Based on Bronfenbrenner's model, we know the home environment may impact development, and logically it makes

sense that the child care environment may influence development as well.

In her review of the consequences of child care on children's development, Alison Clarke-Stewart (1992) identifies four features that determine quality in a day care setting. These features are the child care's physical environment, the behavior of the caregiver, the curriculum, and the number of children in the child care setting. Child care researchers suggest that children appear to do better in clean, well organized, and stimulating environments, and they have more positive outcomes if their caregivers are caring, respectful, and educated in child development. Children also do better if there is variety in the curriculum, if developmentally-appropriate activities are available, if they have routines or structure to their day, and if there are a small number of children per each caregiver (Dodge, 1995; Dragonas, Tsiantis, & Lambidi, 1995; Pence & Goelman, 1991).

Investigators addressing the actual consequences of child care for children's development have found mixed results. Most studies regarding the cognitive and social development of toddlers suggest good day care environments can have positive influences on children as evidenced by higher scores on a variety of child development measures,

including complex speech, school-related knowledge, creativity when exploring play materials, self-confidence, self-sufficiency, positive peer interactions, and helpful and cooperative behaviors (Andersson, 1989; Clarke-Stewart, 1991; Clarke-Stewart, 1992; Goelman & Pence, 1994; Howes & Olenick, 1986; Howes, Phillips, & Whitebook, 1994; Vlietstra, 1981). These findings make sense since children who are in quality day care environments are more likely to engage in developmentally-appropriate activities that foster learning and curiosity.

In spite of the positive influences of child care on children's development, researchers also have suggested that there are negative influences of child care on cognitive and social development. *Children who attend day care tend to be more aggressive and irritable than children who do not attend day care, and they also are less compliant with both their parents and caregivers (Schwartz, Strickland & Krolick, 1974)*. Children's cognitive development may be impaired if the quality of child care is inadequate, if there is not enough structure to the environment, or if the children's activities are not developmentally appropriate (Howes, Phillips, & Whitebook, 1994; Kontos, Hsu, & Dunn, 1994; Scarr & Eisenberg, 1993). Therefore, it has been suggested that observed differences in children's

development in centers and homes are the result of differences in the quality of care rather than the type of child care environment (Lamb, Hwang, Broberg, & Bookstein, 1988; Scarr, Lande, & McCartney, 1988). The differences between children who attend home-based vs. center-based child care environments appear to be greater when the centers are of high quality and the homes are of low quality (Andersson, 1989; Fowler & Khan, 1974; Robinson & Robinson, 1971). Clarke-Stewart (1991) summarized the child-care findings by stating that the developmental differences among children who attend different child care arrangements are likely to come from a variety of, or a combination of, factors associated with the quality of the arrangement, and not a "single critical cause" (p. 118). And she suggests that researchers begin to focus more of their energy and time on these multiple indicators of quality in child care settings.

In order to provide a synthesis of the research on child care, Davis and Thronburg (1994) examined four popular child care settings including family day care homes, center-based care, care by a relative, and in-home care by a non-relative in the child's own home. The researchers suggest that indicators of quality include a curriculum that places an emphasis on child-centered developmentally

appropriate activities, responsive and affectionate caregivers, small group sizes, low adult-child ratios, and a well trained and stable staff.

Unfortunately, there have been inconsistent findings when child care quality variables such as caregiver education, group size, and the content of the curriculum were studied in relation to their effect on children's behavior. For example, researchers disagree on the optimal group size in the child care setting, with some suggesting that children do better in smaller groups, and others stating that there are added benefits to children who are together in larger groups (Howes & Olenick, 1986; Frankel, 1994). In another example of inconsistent findings, some investigators have suggested that children's social development is facilitated by being in a setting with other children, again while other studies have pointed to increased aggression among children who attend child care settings (Bjorkman, Poteat, & Snow, 1986; Howes & Olenick, 1986; Vandell & Powers, 1983). In spite of this, experts generally agree that child care quality issues that should be included in studies of family day care include the size and stability of the family day care home environment; the psychological, social, and academic effects of care on children; the effects of care on providers and families;

parental satisfaction with the child care; and the effects of caregiver training on program quality and the quality of social interactions in the child care setting (Frankel, 1994).

Quality Issues in the Family Day Care Home

Researchers have suggested that the family day care home has unique qualities that many larger child care centers do not have. For example, the size of the child care group is important. Family day care homes generally provide care for only fourteen children at most, at a time, and therefore, the family day care provider may be able to facilitate higher quality care than in a center, provided all other quality factors are equal (Frankel, 1994).

Researchers suggested that family day care may be an optimal environment for a caregiver to provide an affectionate and stable relationship with a child, which is important for a child's healthy development (Heinicke, Friedman, Prescott, Puncel, & Sale, 1973). Since family day care providers generally have fewer children in their care (as compared to center-based care) they are in a better position to provide more individual attention to each child. We know from the attachment literature that attachment issues are important early in a child's life and may influence children's development at later stages (Ainsworth & Wittig, 1969;

Bowlby, 1969). Since attachment theory assumes that attachments reflect the quality of interactions between children and adults, children who attend day care can form secure attachments with their caregivers which may compensate for insecure child-parent attachments (Goossens & van Ijzendoorn, 1990). As stated earlier, due to increased individual attention, children in good-quality family day care homes have an added opportunity to form secure attachments with their caregivers. Yet, researchers have not fully examined the quality of family day care homes, despite the importance of good quality care for cognitive and social development.

Linking Quality in the Family Day Care Home to Children's Developmental Outcomes: A Focus on Play Behaviors

Now that we have discussed the variables that have been found to be associated with good quality child care in general, and we have described the importance of good quality family day care, we can examine how good quality family day care environments impact our children's development. One way of doing this is to focus on children's play behaviors. ~~*~~ Play has been found to be important in the development of cognitive, social, and language skills (Rosenthal, 1994; Saracho, 1992). Researchers have suggested that the critical aspects of

language that are related to literacy development are found in the language children use during symbolic play. During symbolic play, children use language to represent objects, people, or events that are not present (Pellegrini, 1985a,b). Studies also have supported the idea that sociodramatic play, for example, enhances children's perspective taking skills because the children have the opportunity to "take on" the identity of another person. By doing this, the children take on the thoughts and emotions of the person (Connolly & Doyle, 1984; Rubin & Maioni, 1975). Other studies have shown that problem-solving skills can be enhanced through play (Dunn & Herwig, 1992; Pepler & Ross, 1981; Simon & Simon, 1983). For example, children who played with puzzle pieces with the form board were able to solve puzzles requiring convergent thinking, while playing with puzzle pieces without a form board led to better solutions of problems requiring divergent thinking (Pepler & Ross, 1981). Researchers have indicated that play behaviors are important to investigate because we may obtain a better understanding of a child's development by looking at their free-play behaviors. In particular, we may obtain a better idea of the child's social and cognitive development by looking at the social and cognitive levels of children's play.

A Description of Social and Cognitive Play Behaviors

Parten (1932) looked at play from a social behavior perspective, and identified non-social and social play categories based on observations of the typical play episodes of children. There are three categories within her Non-social play categories that include Unoccupied Behavior, Onlooker Behavior, and Solitary Play. Unoccupied Behavior is characterized when the child wanders aimlessly without focusing on any activity. Onlooker Behavior is described as when the child stands at the periphery of groups and activities, within hearing and speaking distance of the other children, making comments but not being actively involved. Solitary Play is described as when the child is involved in an independent activity without the company of any other children. Within Parten's Social play categories, play behavior can be described as Parallel Play, Associative Play, or Cooperative Play. During Parallel Play, children are playing independently of each other within close proximity of other children. The children may be playing with the same materials, but are not interacting with one another. Associative Play is characterized when children are actively playing together and are talking with each other about the common activity. Cooperative Play involves organizing the play group so that everyone has different

roles in order to achieve a goal for the group, which helps to foster a sense of belonging. Parten suggests that the social skills needed in play increase in complexity as the child moves from non-social play (unoccupied behavior to onlooker behavior to solitary play) to social play (parallel play to associative play to cooperative play). This suggests that categories within social play are considered to be more complex or at a "higher level" than those within the non-social play categories, since the social play categories require more complex social skills.

In addition to the social qualities of play, there are cognitive aspects as well. Play from a cognitive perspective was investigated by Piaget (1962) and expanded later by Smilansky (1968). Functional Play is described as play with simple, repeated motor actions, with or without an object. Constructive Play is when children are using materials to create other things. During Dramatic Play, children engage in pretense by assuming roles and by engaging in the make-believe transformation of objects and situations. Games with rules are considered to be the highest level of play from the cognitive perspective, and this type of play is characterized by children accepting prearranged rules and conforming to these rules while involved in the particular game. Smilansky and Piaget have

suggested that the cognitive skills necessary to engage in higher levels of play increase as the child engages in different levels of play behaviors.

Play is one of the most naturally occurring behaviors, and research studies have shown a strong relationship between play and the development of cognitive, social, and language skills (Rosenthal, 1994; Saracho, 1992). In the play literature, researchers have suggested that children who attend high-quality day care centers display less nonsocial play behavior than children in low-quality centers (Howes & Olenick, 1986; Rosenthal, 1994). Moreover, preschool children who have had high-quality care in centers as toddlers also engage in more social pretend play than preschoolers who were in low-quality care in centers (Howes, 1990). These findings indicate that there is a relationship between the quality of child care and children's level of play, yet we only have a few studies of the quality of the family day care setting and its effects on children's levels of play.

The Quality of the Family Day Care Home and Children's Cognitive and Social Play Behaviors

Goelman and Pence (1987a,b) examined the program quality of licensed and unlicensed family day care homes and observed the spontaneous play activities among the children

attending these family day care homes. The results from their studies indicated that the licensing status and the overall quality of the program within the family day care home were associated with children's higher test scores for language development. In the higher-quality family day care homes, the children were observed in higher levels of interactive play activities that involved reading and sharing information with each other more frequently. Lower-quality family day care homes were associated with lower levels of interactive play among the children and lower test scores, and children were observed watching television more frequently. The findings from these studies suggest that there is a relationship between program quality in the family day care homes and child outcomes, such as levels of play behavior.

In a study by Rosenthal (1994), the social and nonsocial play of infants and toddlers who attended family day care in Israel was investigated. Rosenthal's study explored the effects of the child's socioeconomic status, the age and sex characteristics of the child's peer group, the daily schedule of the family day care, and the educational quality of the family day care environment on children's social play (play with peers) and nonsocial play (play with objects). Results indicated that children who

had difficulties in separating from their parents spent more time in gross motor play with objects and less time in a higher level of play with their peers. Even when family background effects were taken into account, results indicated that children's play behavior was mainly influenced by factors within the family day care environment, such as group composition. For example, although the presence of younger children did not affect the competence of play among older children, younger children who were in groups with older children played with objects at a higher level and were more competent with peers. Results from this study indicate that the child care setting can influence the play behavior of children, and that good quality family day care may be important for children's play behaviors.

In another study investigating the relationship between the quality of the child care setting and the quality of peer play experiences, Lamb, Sternberg, Knuth, Hwang, and Anders (1994) examined whether or not children play with peers differently in different child care environments. They looked at children in both their home environments and in their child care environment. Although the researchers found no differences between the children who attended center-based care vs. family day care when the children were

observed in their own home setting, the researchers did find differences in the children's behaviors based on the child care settings. Children who attended family day care exhibited higher levels of play quality and more positive behaviors in their own homes than those children in day care centers. One explanation as to why the children from family day care settings appeared to be more socially skilled than children attending center-based care was that the family day care environment is more supportive of social play. There is often a smaller number of children attending a family day care home, which may make it easier for children to play together longer without problems or interruptions, provided there is adequate structure within the program. In addition to this, there are often mixed age groups within a family day care setting which allows older children to model high quality social play behaviors for the younger children in the play group. Taken together, Lamb et al. (1994) suggest children who experience high quality care (both in their own home and in the child care setting) may become more skilled in their interaction with peers, and that a high quality family day care home may be an optimal environment in order to facilitate peer social skills.

Statement of The Problem

Previous studies that have looked at the implications

of child care for children's development have focused on the type of child care that the children attend. These studies have provided mixed and contradictory results regarding family day care vs. other types of care. Based on the literature reviewed in this proposal, it has been suggested that the quality of the setting appears to be a more salient factor for determining the positive or negative influences of child care on children's development. However, the issue of quality in different family day care homes has been relatively neglected in the child care literature because of a strong emphasis on the "between types of care" studies.

It is important to study family day care homes (a "within setting" approach) because of the unique qualities they possess. For instance, family day care homes have limited resources compared to larger facilities, the physical environment in these homes may be different due to space limitations, and the family day care provider's experience and training may be quite different than that of caregivers within a larger facility. These differences make it difficult to generalize findings from studies on preschool or center-based care to the family day care home.

Therefore, it seems reasonable that in order to obtain a better understanding of the influences of a particular type of child care (the family day care home) on children's

development, we must first consider which aspects of a quality program help to facilitate a positive influence on development, and in particular, which quality variables in the family day care home are associated with higher levels of cognitive and social play behaviors.

Hypotheses

It is hypothesized that children who attend high-quality family day care environments will engage in higher levels of social and cognitive play (that is, higher levels of associative play, cooperative play, constructive play, dramatic play, and games with rules). It also is expected that those children who attend low-quality family day care homes will engage in higher levels of non-social play (that is more unoccupied and onlooker behavior and solitary play) and will display lower levels of social and cognitive play (that is, higher levels of parallel and functional play). Moreover, it is predicted that parents' greater satisfaction with their child's family day care home will be positively associated with their child's higher levels of cognitive and social play (that is higher levels of associative, cooperative, constructive and dramatic play and games with rules). Quality of care will be defined in terms of the family day care environment as well as aspects of the caregiver. Environmental "quality" factors include space

and furnishings for care and learning, basic care provided for children, the facilitation of language and reasoning, learning activities, the facilitation of social development, and providers' attention to adult (parental) needs. A quality child-care provider will have a background in child development or early childhood education and is defined as a more professional, aware person who can provide a safe, supportive, and stimulating environment for a group of children with varying needs, and who communicates well with parents.

Chapter Two

Method

Participants

Participants were recruited on a volunteer basis from licensed family day care homes surrounding a small southwestern, rural university.² Family day care providers and the parents of child participants were included in the study. Forty-eight children (65% male) between two and five years of age (mean age of 38 months) who have been attending day care in a licensed family day care home were included in this study. This represents fifteen family day care homes, fifteen providers, and forty-five parents. On average, child care providers had 11.38 children enrolled in the family day care home and 12.73 years of education. Although this was a sample of convenience, the researcher tried for an equal number of male and female children as well as an equal number of children within each age group. The researcher also attempted to obtain a diverse sample among participants in terms of ethnicity and socioeconomic background. Participants were treated in accordance with the "Ethical Principles of Psychologists" (American Psychological Association, 1981). Table 1 provides demographic statistics for parents and caregivers, in terms of the child and family background variables.

Further information about the caregivers', parents' and children's characteristics are presented in Tables 2a and 2b.

Materials

Quality of The Family Day Care Homes

The quality of the family day care home was assessed by two individual investigators using Harms and Clifford's (1989) Family Day Care Rating Scale (FDCRS), which is a comprehensive measure that attempts to provide an overall picture of the quality of care provided for children within a family day care. The 32-items of the scale are grouped into six categories that include space and furnishings for care and learning (consisting of six items, such as a child-related display in the home), basic care (seven items, such as diapering/toileting procedures), facilitation of language and reasoning (four items, such as helping children understand language), learning activities (nine items, for example, music and movement activities), facilitation of social development (three items, such as methods of discipline), and attention to adult needs (three items, for example, a positive relationship with parents). Items within each category are rated on a 7-point Likert-scale with anchors including 1 = "Inadequate", 3 = "Minimal", 5 = "Good", and 7 = "Excellent."

Inter-rater reliability and internal consistency of the FDCRS has been established in two separate studies by Howes and Stewart (1987) and Howes (1987). For both studies, an inter-rater reliability of greater than or equal to .90 was established. Howes and Stewart (1987) calculated internal consistency of the FDCRS subscales using Cronbach's alpha. Subscale alphas ranged from .70 to .93. Harms and Clifford concluded that the FDCRS is capable of being a reliable measure of family day care home environments when observers are properly trained. In this current study, Cronbach's alphas ranged from .68 for the facilitation of social development subscale to .91 for the language and reasoning subscale. Cronbach's alphas, obtained for this current study, for each of the six subscales of the FDCRS are presented in Table 3.

It has been difficult to establish validity for the FDCRS because it is a fairly new instrument and there are not many similar instruments to compare results. Therefore, measures of concurrent validity are not currently available for the FDCRS. However, since the FDCRS was adapted from Harms and Clifford's Early Childhood Environment Rating Scale (ECERS, 1980), the established validity of the ECERS provides face evidence that the FDCRS is also a valid measure of the quality of environments within family day

care settings. Harms and Clifford suggest that final determination on the validity of the FDCRS will depend on future studies which use the FDCRS to identify the quality indicators of family day care environments and the relationship of this variation in quality to child outcomes (Harms & Clifford, 1989).

Child Outcomes (Play Behavior)

Two to three individual investigators conducted naturalistic observations of target children whose parents gave their consent for their children to participate in this study. The investigators observed and recorded target children's free play behavior and their interactions with the caregiver while the child participants were in the family day care home. Assessments of social and cognitive levels of play were obtained using the Free Play Classification Scale (Higginbotham, Baker and Neill, 1980). This scale is a combination of Parten's (1932) sequence of social play for preschool children (unoccupied, onlooker, solitary, parallel, associative, and cooperative play) and Piaget's (1962) and Smilansky's (1968) developmental sequence of cognitive play behavior (functional, constructive, and dramatic play as well as games with rules). By combining these scales, Higginbotham, Baker and Neill (1980) were able to reorganize the original Social

Participation and Cognitive Play classifications into a more precise and behaviorally explicit format. The investigators used time sampling techniques and recorded on a tally sheet all the types of play behavior occurring during ten three minute play sessions.

Validity of the Free Play Classification Scale was established by experts who were asked to help in the construction of the free-play classifications. Kendall's Coefficient of Concordance (Winkler & Hays, 1975) was used to assess the consistency in which the experts arranged the developmental sequences of Social Participation and Cognitive Play. Inter-expert reliability was high for both Social Participation ($r = .96$) and Cognitive Play ($r = 1.00$).

In Higginbotham, Baker, and Neill's (1980) study, the reliability of the Free Play Classification Scale was assessed by having twenty graduate students view pre-recorded free-play samples in order to determine the consistency of their assessments of the play behaviors. Ratings of the Social Participation classifications indicated significant inter-observer agreement and significant inter-sample scores indicating consistency among ratings. Based on these findings, Higginbotham et al. have concluded that the Free Play Classification Scale is an accurate way of assessing free-play behaviors of preschool

aged children. Other researchers (Rubin, et al, 1976; Higginbotham & Baker, 1979) have supported these findings and have indicated that inter-observer agreement in using the Free Play Classification Scale may be improved when the raters have prior training on the measure.

Research assistants for this current study were trained on the use of both the Family Day Care Rating Scale (Harms & Clifford, 1989) and the Free Play Classification Scale (Higginbotham et al., 1980). All research assistants were provided a copy of the FDCRS and score sheets which describe the scoring procedures. They also were provided descriptions and an example of each of the play categories listed on the Free Play Classification Scale. Children were observed during "free play" time for a of total 30 minutes on the first visit. During this time, the researchers recorded the children's level of play after observing the target child for ten three minute time samplings. A second coder conducted observations of children's free play behavior (either on the same visit or on a later visit) and recorded the children's level of play while observing the child for five three minute time samplings, for a total of 15 minutes. Often, several of the children were observed within a group and as a result, the children were observed during the same time sampling (as it was not possible to

observe a single child during each time sampling due to the time constraints of each visit). Inter-rater reliability was not established due to the fact that both researchers may not have observed the target child's play behaviors during the same time sampling or because the children were seen on a later date for the second free play observation. Since some of the children were seen on two separate days, they may have been engaging in different play behaviors, therefore the inter-rater reliability would appear to be low. It should be pointed out, however, that between the two observers there were a total of 15 to 20 time samplings conducted for each child who participated in the study.

Demographics

Family day care providers and parents of child participants were each presented with a paper and pencil questionnaire to obtain background information such as age (of parent or caregiver), education, occupation, income, parental marital status, total weekly hours worked, and the child's gender, number of siblings, current age, age of entry into child care, and child care history.

Procedure

The investigator contacted the State of California Department of Social Services-Community Care Licensing Division and local Resource and Referral Services in order

to obtain listings of local licensed family day care providers, child care support groups and child care associations. Licensed family day care providers, local child care support groups, and child care associations within the surrounding area of southwestern, rural university were notified by telephone regarding this study. Licensed family day care providers and parents of child participants for this study were approached by the examiner who gave them a verbal and written explanation of the study.

Caregivers and parents of child participants who agreed to volunteer for the study were asked to read and sign an informed consent form.

Parents of child participants and day care providers were given the background information questionnaires to complete prior to, or during, an on site visit by the researcher and her assistants to the family day care home. These visits lasted approximately ninety minutes, on average. During the visit, the one to two investigators conducted naturalistic observations of caregiver behavior and free-play episodes of child participants whose parents gave consent to participate in the study while another investigator observed the quality of the family day care home. Parents and day care providers also were supplied with an addressed, stamped envelope in which to return the

completed questionnaires if they were not able to complete them prior to the investigator leaving the facility. In some cases, the investigator instead returned to the facility at a later date to pick the questionnaires up. Naturalistic observations of caregiver behavior, the quality of the family day care home, as well as the caregivers' interactions with children were conducted by one to two separate investigators either on the same visit, or during separate visits to the family day care home. Naturalistic play observations were conducted by two to three investigators either on the same visit or during separate visits to the family day care home. The child participants were observed as a group during the same time sampling due to the limited amount of time researchers were allowed in the family day care homes. However, inter-rater reliability for the play observation measures was not obtained because each observer may not have observed the same target child during the same time sampling or on the same on-site visit.

Upon the return of their questionnaires, parent and caregiver participants were given a debriefing statement and the investigator attempted to answer any of their questions.

Scoring and Analysis

Higher scores on the Harms and Clifford's (1989) Family

Day Care Rating Scale (FDCRS) categories (e.g. space and furnishings for care and learning, basic care, facilitation of language and reasoning, learning activities, facilitation of social development, and adult needs) indicated higher quality in the family day care environment. Lower scores indicated lower quality in the family day care home. Play behaviors were measured using frequencies such that a higher score indicates a higher frequency for each level of play behavior.

Pearson correlations were used in order to determine if there was a significant relationship between quality indicators within the family day care home and the children's levels of social and cognitive play. It was expected that higher scores on the FDCRS would be significantly associated with higher levels of cognitive play (that is, higher levels of constructive play, dramatic play and games with rules). Higher scores on the FDCRS were expected to be significantly associated with higher levels of social play (that is, higher levels of associative and cooperative play). It was expected that lower scores on the FDCRS, indicating lower quality within a family day care home, would be significantly associated with lower levels of cognitive play (that is, higher levels of functional play). Lower scores on the FDCRS were expected to be significantly

associated with lower levels of social play and more non-social play behaviors (that is, higher levels of parallel play and solitary play, and more unoccupied or onlooker behavior).

In addition to the Pearson correlations, as an exploratory analysis, the researcher conducted two stepwise multiple regressions in order to determine which aspect of quality (including both caregiver characteristics and aspects of the family day care home itself) would be the best predictor of the quality of children's social and cognitive play. In the first regression analysis children's scores on the highest form of social play (i.e., level of parallel play) were regressed on the quality variables of the FDCRS (i.e., those quality variables that had been significantly associated or tended to be associated with parallel play in the Pearson correlations). Thus, space and furnishings, basic care, facilitation of language and reasoning, and providers' overall satisfaction with their child care business served as the independent variables in the regression. In the second regression analysis children's scores on the highest form of cognitive play (i.e., level of constructive play) were regressed on the quality variables of the FDCRS (i.e., those quality variables that had been significantly associated or tended

to be associated with constructive play in the Pearson correlations). Thus, space and furnishings, basic care, facilitation of language and reasoning, and providers' overall satisfaction with their child care business served as the independent variables in the regression.

Chapter Three

Results

Table 4 lists means, standard deviations, and ranges for all study variables.

Pearson correlations were used in order to determine if there was a relationship between quality indicators within the family day care home and the levels of children's social and cognitive play. The significant findings are highlighted here. See Table 5 for a summary of significant and trend level correlations between quality variables and levels of cognitive and social play. The overall quality within the family day care home (i.e. the total score on the 32-item FDCRS) was significantly, positively associated with constructive play ($r = .37, p < .05$) such that the greater the overall quality of the day care home, the more frequently children engaged in constructive play. The quality of the total basic care provided in the family day care home was significantly, positively associated with constructive play as well ($r = .46, p < .01$), as were the caregivers' facilitation of language and reasoning ($r = .51, p < .01$) and the quality of the space and furnishings available in the family day care home ($r = .61, p < .01$). That is, when family day care homes provide high quality basic care (e.g. structured diapering and toileting

procedures, meal and snack preparation, and health and safety procedures) and ample space and furnishings, and when they are highly facilitative of language and reasoning skills, children engage in more constructive play (e.g., children create with materials such as blocks and clay more often).

Moreover, parents' overall satisfaction with the family day care environment was significantly, negatively related to solitary play ($r = -.38$, $p < .05$) suggesting that parents were more satisfied with the family day care home when their children were spending less time playing alone. The quality of the space and furnishings in the family day care home also was significantly, positively associated with cooperative play ($r = .34$, $p < .05$). That is, children engaged in higher levels of cooperative play when there was adequate space and furnishings within the family day care home environment. Furthermore, the facilitation of language and reasoning in the family day care home was significantly, negatively correlated with unoccupied behavior ($r = -.37$, $p < .05$) indicating that in family day care homes where children's language and reasoning skills were being facilitated by the caregiver, there was less unoccupied behavior among the children. Finally, and unexpectedly, there was a significant, positive relationship between the

quality of basic care in the family day care home and the amount of onlooker behavior among the children ($r = .33$, $p < .05$). That is, when family day care homes provided high quality basic care, children engaged in more onlooker behavior. There were no other significant correlations between the quality of family day care variables and the levels of social and cognitive play behaviors.

Following the initial correlations, a series of partial correlations were performed because it was believed that there may have been several variables affecting the results, such as the varying ages of the children and the varying number of children in the play group. After controlling for the children's varying ages, all previous bivariate correlations remained significant, plus the quality of the space and furnishings in the family day care home now was significantly, positively related to children's level of parallel play ($r = .39$, $p < .01$).

After controlling for the family day care home's group size, all previous bivariate correlations found remained significant, and in addition, children's level of parallel play was positively related to the quality of the total basic care provided in the family day care home ($r = .35$, $p < .05$), the facilitation of language and reasoning ($r = .31$, $p < .05$), space and furnishings within the family day care (r

= .39, $p < .01$) and the overall quality of the family day care home ($r = .32$, $p < .05$).

As an exploratory analysis, two separate stepwise multiple regressions were conducted in order to determine which aspect of quality for the family day care home was the best predictor of the levels of children's social and cognitive play. In the first regression analysis, children's scores on the highest level of social play (i.e., levels of parallel play) were regressed on the separate quality variables of the FDCRS that were significantly or at a trend level associated with parallel play (i.e., space and furnishings). The regression model was not significant. In the second regression analysis, children's scores on the highest level of cognitive play (i.e., levels of constructive play) were regressed on the separate quality variables of the FDCRS that were significantly or at a trend level associated with constructive play (i.e., space and furnishings, basic care, language and reasoning, and provider's overall satisfaction with their child care business). Space and furnishings emerged as a significant predictor of the quality of the children's constructive play, $F(4,41) = 2.96$, $p < .01$, $Beta = .48$. There were no other quality variables from the FDCRS that were significant predictors of constructive play.

Chapter Four

Discussion

In a sample of forty-eight children ranging in age from two and five years, several interesting correlations emerged between indicators of quality within the licensed family day care home and levels of social and cognitive play behaviors exhibited during free play sessions. First, the hypothesis that children who attended higher-quality family day care homes would engage in higher levels of social and cognitive play (i.e. associative, cooperative, constructive, and dramatic play and games with rules) was partially supported. When looking at social play, our study showed that cooperative play behaviors were significantly related to space and furnishings within the family day care home. When you consider that cooperative play involves group organization in which there are different roles and a sense of belonging among the group with the purpose of achieving a goal (Parten, 1932), these findings make sense. It was suggested in the literature that children tend to do better in spaces that are not crowded, if there are child-sized furnishings, and a variety of materials available with which the children can play. The literature suggested that children may become irritated or frustrated if they are crowded together and if there are not enough play materials

to go around. It seems that if a family day care home had ample amounts of space, child-sized and comfortable furnishings then children will have more "space to themselves" to explore are more likely to play together, to organize their play, and to cooperate with each other. Therefore, the social level of play may be facilitated by not only the children themselves but also by the child care physical environment as well.

Our findings also included a significant association between total basic care within the family day care home and onlooker behavior. Onlooker behavior is considered to be a non-social play category in which the child stands at the periphery of groups or activities, within hearing and speaking distance of the other children, making comments but not being actively involved (Parten, 1932). Some may consider onlooker behavior in a "negative" light because it is considered to be non-social play behavior, however, onlooker behavior may be an important aspect of social development, especially for younger children. It can be argued that those children who are engaging in onlooker behaviors are doing so in order to observe their peers to learn about social skills and to learn about appropriate ways to enter play groups among their peers. Since the participants in our study were between two and five years of

age, for younger children, onlooker behavior may be an important step in learning social skills.

When looking at cognitive aspects of play, other interesting findings were that several subscales from the FDCRS (basic care, language and reasoning, and space and furnishings) were significantly associated with constructive play behaviors, which, according to Piaget (1962) and Smilansky (1968), is when children use materials to create other things such as building with blocks. These findings suggest that not only is overall quality within a family day care home important, but also there may be a number of areas within quality environments (i.e. basic care, language and reasoning and space and furnishings) that may be influencing higher-levels of cognitive play behaviors.

Another interesting finding was that parents' overall satisfaction with their current child care choice (the family day care home) was negatively related to solitary play. These findings suggest that parents are more satisfied with their family day care home when their children are spending less time playing by themselves. It also suggests that parents and caregivers are communicating with each other about the child, which may be an important aspect of caregiver quality and effectiveness. This makes sense because many parents begin looking for ways to

encourage their toddler- and preschool-aged children to begin socializing with other children. Many parents like the social aspects of family day care homes because there are not as many children as in day care centers; therefore, there are more opportunities for smaller group interactions.

Unexpectedly, there was no significant relationship between the quality of the family day care variables and games with rules, dramatic play or associative play. Because "games with rules" is considered a type of cognitive play for mostly elementary-school children, the younger age range of the participants in this study may have precluded the use of this category. In this current study, there were low frequencies for associative play, dramatic play, and games with rules episodes among the children. On average, the children in this study engaged in associative play behaviors for seventeen minutes out of sixty minutes total observation (combining two observations for each child), sixteen minutes for dramatic play behaviors, and less than one minute for games with rules. According to Piaget (1962), two-to four-year-old children would not usually have the cognitive skills or attention span necessary to engage in games with rules on a consistent basis, especially without some modeling from older children or adults.

Although the age of the child participant was a factor

in the levels of play behaviors in which the children engaged, it was very unexpected that dramatic play and associative play were not significantly associated with the quality within the family day care homes. Researchers observed the children engaging in dramatic and associative play for an average of 16.89 and 17.08 minutes respectively (combining both observations of free play behaviors). This suggests that children will engage in both dramatic and/or associative play behaviors regardless of the quality within the family day care home. Another explanation is that by taking all the data into consideration, it is possible that dramatic play is considered to be more of a "structured activity" and takes time to set up. Since the play observations occurred during "free play," the materials may not have been readily available for the children to use. It was observed that dramatic play usually occurs in "spurts" with the children and sometimes dramatic play takes time to develop. Researchers were in the home for approximately forty-five minutes, with play observations usually lasting thirty minutes for the initial observation and fifteen minutes for a follow up observation. This relatively short amount of time the researchers were in the home may have precluded seeing dramatic play sessions develop. Also, limited space available in the family day care home may

preclude dramatic play as a "normal" part of routine activities. The lack of significant findings for associative play may still be due to the age of the children, or the children may have been more interested in exploring different materials during free play, and not necessarily concerned with playing together in a similar activity. Associative play may also require time to evolve between the children and, due to the relatively short observation period, researchers may not have observed the development of associative play between the children. The same argument regarding age may be used in explaining why there were limited significant findings for cooperative play. Indeed, a Pearson correlation between the frequency of cooperative play and the target children's ages indicated a significant positive relationship between the target children's age and the frequency of cooperative play ³, indicating that the greater the child's age the more cooperative play they engaged in. Two- to four-year old children may play and interact together, but it is not always for the purpose of obtaining a common goal because many children this age are still very egocentric. Therefore, it may be difficult for young children to delay their own desires and to take another child's perspective (Piaget, 1962), thus precluding cooperative play behaviors.

After performing the first series of correlations, we assumed that there were several variables that may have been affecting the results of our analyses. To investigate this, we performed a series of partial correlations that controlled for the target children's ages and the number of children present in the play group. After controlling for the children's ages, we found a significant, positive correlation between space and furnishings in the family day care home and children's level of parallel play. This indicated that family day care homes that received a higher quality score on the space and furnishings category had children who engaged in parallel play behaviors more frequently, regardless of the participant's ages. Perhaps parallel play is a frequent "mode" of play among children attending family day care homes, or perhaps children tend to engage in parallel play more often during free play sessions because they are free to explore their environment at their own pace and to play with different materials available to them due to the fact that a structured activity is not scheduled. Therefore, several of the children may be in close proximity of each other or playing with the same materials but would not necessarily be interacting with one another.

Significant relationships between several quality

subscales (i.e. basic care, facilitation of language and reasoning, and space and furnishings) and parallel play were indicated after controlling for group size (the number of children present during the play observations). This suggests that childrens' social levels of play are not only influenced by the children themselves, but also factors within the family day care home, such as available space, basic care giving, and activities which encourage children to use language and reasoning skills.

Although parallel play is considered by developmental researchers to be a lower form of social play (as compared to associative and cooperative play), the findings of this study may reflect the age range of the participants (the mean age of the children was 38 months). Many younger children observe a play group for a period of time and some children play on the outskirts of the larger group before becoming involved with the peer group. Most children between two-and four-years of age are still learning social skills and appropriate ways of how to join a group of their peers, so it would be appropriate for them to play next to each other as they are observing and learning. Therefore, in this study, for the younger age group examined, parallel play may actually be a "higher" form of social play. And, in this study, there was more parallel play among children

when there were more children present in the play group.⁴ It seems reasonable to expect that children will engage in parallel play more frequently with a larger number of children present. These findings may help child care professionals who interact with larger groups of children maximize room arrangement and the amount of space available and develop and appropriate curriculum facilitating play among the children.

The regression analysis indicated that space and furnishings within the family day care home was a significant predictor of the quality of children's cognitive play (i.e., constructive play) indicating that there were higher levels of constructive play when children had more space and higher-quality furnishings in the family day care. Since constructive play consists of children using materials to create other things, such as building towers with blocks, these findings make sense because children are able to move around freely and have room to "construct" things with the blocks. It would be more difficult to explore and create different things in a confined area. This finding indicated that perhaps space and furnishings within the family day care are important aspects of the home that may influence the levels of children's play.

In the study by Clarke-Stewart (1991) several reasons

for the observed differences in the levels of cognitive and social development between children who attended home-based and center-based care were presented. One suggestion was that the characteristics of center-based care are similar to a school setting which may facilitate social skills, development and intellectual competence. Although her findings and suggestions have negative implications for family day care settings, this current study, which attempted to show that family day care homes that provide a high-quality program similar to those found in high-quality child care centers also facilitate children's higher-level social and intellectual skills, suggests that there are a number of quality aspects within family day care settings that may influence children's cognitive and social play behaviors. For example, cooperative play was related to the quality of the space and furnishings within the family day care home, and constructive play was associated with the quality of the space and furnishings, the quality of the basic care provided, the facilitation of language and reasoning skills, and the overall quality of the family day care home. These findings, along with Clarke-Stewart's (1991) suggest that there are a number of factors, beyond overall quality within a family day care home, which influence children's play behavior.

The findings from our study also support Clarke-Stewart's (1992) suggestions concerning the quality features of importance in studies of child care settings (the physical environment, the behavior of the caregiver, the curriculum, and the number of children present). For example, play group size, space and furnishings in the family day care home, basic care provided, and the facilitation of language and reasoning skills all were significantly correlated in this study with levels of play among the children. In addition, there may be several "unique" advantages of home-based care for children's development. Children in the family day care home may have greater opportunities to observe and model each other and to obtain intimacy with other children as well as the adult care provider because of the smaller groups of children.

The findings from this current study also support the findings of Lamb et al. that when there are groups of children of mixed ages, the older children often model quality social play behaviors for the younger children. Taken together, this suggests that children who experience high quality care (both at home and in the child care setting) may become more skilled in their interactions with peers and that a high-quality family day care home may be an optimal environment in order to facilitate peer social

skills.

As presented in the literature review, researchers have suggested that children who attend high-quality day care centers displayed less non-social play behavior than children in low-quality centers (Howes & Olenick, 1986; Rosenthal, 1994). Preschool-aged children who had higher-quality care as toddlers also engaged in more social pretend play than preschooler who were in lower-quality care. These findings indicate there is a relationship between the quality of child care and children's level of play. Although findings from this current study did not yield significant results for associative and dramatic play, parallel and constructive play were both positively related to quality factors within the family day care home, once the children's varying ages and group size were taken into account. It was suggested that parallel and constructive play were higher levels of play for this particular sample of children, and that parallel play may be an important "vehicle" by which preschool-aged children learn appropriate play behaviors and social skills, such as entering play groups among their peers.

Like Rosenthal's (1994) study which found that younger children who were in groups with older children played with objects and peers at a higher level, findings from this

current study supported the idea that young children learn from older children in their group. For example, it was observed that many of the children engaged in parallel play and onlooker behavior for a period of time. It was suggested that these children were observing their peers to learn about entering play groups and to learn appropriate social skills. It seems reasonable to assume that younger children who are in groups with older children will be exposed to a "higher-level" of social and cognitive play interaction, and will learn from the older children through the process of modeling.

Limits of the Study

This study has several limitations that may have influenced the results. First, the researcher was not able to obtain measures of inter-rater reliability on the quality measure (FDCRS) or the play measures due to the number of assistants available for this study and to the limited amount of space available for observation in the family day care homes. Having four investigators (two to measure the quality of the family day care home and two others to measure play behavior) come into a family day care home at one time was not possible since it may have been unsettling to some of the children present. Therefore, most providers involved in the study were hesitant to allow a large number

of researchers to come into the family day care home at one time. In addition, inter-rater reliability was not obtained because there were several occasions where both researchers conducting the naturalistic observations were not observing the play behaviors during the same time sampling or during the same onsite visit. Also, the researcher would have liked to conduct the on-site naturalistic observations on unannounced days; however, due to the fluctuating days of attendance of some of the children enrolled in their care, it was necessary to make appointments to ensure that the target child would be present during the on-site visit. Because the visits were scheduled in advance, an accurate picture of the "normal" free play behaviors or daily routines at the family day care home may not have been obtained (that is, providers may have altered their day care schedules or behaviors once they knew the researchers were coming).

A second limitation of this study is that a large percentage of our child participants were white males from middle-class families (80% Caucasian, 65% males and 45% of the families had a total yearly income over \$50,000). Unfortunately, this was a sample of convenience and we were not able to obtain an equal variety among socio-economic status levels or ethnicity among our participants. Future

studies of family day care homes that include participants with a wider range of socio-economic status and greater cultural diversity are needed.

Third, the number of significant correlations was small relative to the number run (i.e., eight out of seventy-seven, or approximately 10%). Perhaps if there had been more participants included in the study, several trend-level correlations may have approached significance, thus increasing the number of significant correlations.

A fourth limitation of this study is that only licensed family day care homes were included in the study and therefore the results may be skewed due to the fact that most licensed family day care homes may provide a higher-quality environment compared to unlicensed or unregulated family day care homes. Although it would be difficult to locate and recruit unlicensed family day care homes, future studies which address this population would be helpful in our understanding of family day care.

A fifth limitation of this study is that the gender of the children may also play a role in the types of play in which they engage. This issue needs to be examined in future studies with larger sample sizes.

Sixth, the quality measure, the Family Day Care Rating Scale (FDCRS), may have some limitations. Although the

FDCRS was adapted from the Early Childhood Education Rating Scale (ECERS) (which is used in center-based programs) to specifically look at care within family day care homes, it still may be too stringent for some family day care homes. For example, within the Learning Activities subscale there are a number of items in which the family day care home may have received lower ratings based on the scoring categories, such as art, sand and water play, and dramatic play activities. On the score sheet for art activities, the rater gives scores based on the number of art activities available to the children throughout the week, the number of different types of materials, as well as if the materials are readily available for the children to use. Because there were a number of family day care homes in which there were mixed age groups, the day care providers often placed the art materials out of the younger children's reach (although they did allow the children to use the materials when the children asked). Therefore, placing the art materials out of the children's reach was a safety concern that the family day care providers felt outweighed the benefits of having the art materials readily available for children to use on their own without adult assistance. Second, some of the family day care homes included in the study chose not to provide either sand or water play

activities on a consistent basis because of several safety concerns they had. For example, as stated earlier, many had children ranging from infancy to school-aged in their care. Some providers believe they would not be able to provide adequate supervision of all the children engaging in water play (such as having a small swimming pool filled with water for the children), especially if there were infants present. In other instances, the providers chose not to provide a sand box for the children because many of the providers had pets such as cats in their home and they felt that it would not be sanitary to have a sandbox. Once again, the providers felt they had valid safety concerns which outweighed the benefits for their particular family day care.

Again, dramatic play is very common among preschool-aged children, and during the naturalistic play observations, the researchers observed a number of children in different family day care homes engaging in dramatic play. Most family day care homes are able to provide a small variety of props and dress-up clothing for children to use during dramatic play sessions, however there are usually not as many props as compared to center-based programs. Although the children who are attending the family day care home are probably getting a "rich" play

experience, the score on the FDCRS may not reflect it because of the limited items available. It is obvious from the measure that family day care homes with higher scores on the FDCRS are more likely to resemble the structure and organization of center based-programs than those homes which have lower scores. Since the family day care home is based out of an individual's home and may not have the number of resources a center-based program has, it may be unreasonable to assume that the family day care home should strongly resemble the structure and organization of a center-based program. Many of the family day care homes offered a variety of activities and experiences for the children enrolled in their care; however, they may do so on a smaller scale when compared to the center-based programs. However, these family day care homes should not necessarily be considered of "lesser quality."

Finally, parents and family day care providers may have answered some questions on their respective questionnaires according to what they believed the researchers wanted to hear or answered in a way to make themselves look good. This may have caused the ceiling effect observed in the parent and day care provider overall satisfaction subscales since there was almost no variance in the scores (i.e., caregivers reported they are "extremely satisfied" with

their career and parents were "extremely satisfied with the family day care home).

Implications of the Study

Although there were several limitations, the findings of this study have several implications for researchers, child care professionals, and parents. First, although onlooker behavior is considered non-social play behavior, this study provides support that it may be an important part of how younger children learn how to enter play groups and appropriate social skills. Unlike center-based programs, family day care homes do not usually keep different age groups separate from each other, suggesting that children in the family day care have multiple opportunities to interact and play together. Onlooker behavior may be an important and useful tool used by younger children as they observe and learn from their older playmates. Future studies which investigate the role that onlooker behavior has in family day care settings would prove to be beneficial in expanding our knowledge and our understanding of this particular non-social play behavior.

Second, this study also indicated that parallel play may be an important mode of play in which younger children learn social skills and how to enter play groups. Indeed, in this study, parallel play was the modal or most typical

form of play found in the family day care homes for the two- to five-year old children. This indicates that it is frequently seen and important to the children, and positively related to higher quality programs; therefore it should be important to researchers as a higher level of play than previously assumed. The findings relating parallel play and group size were especially interesting, since they indicated that there is increased parallel play among children when they are in larger groups. This may be useful information for child care professionals as they may divide the children into smaller groups in order to facilitate different levels of play behaviors.

Third, it was indicated that parent's overall satisfaction with the family day care home was related to the amount of time their children were playing with others. This suggests that parents are concerned with the social aspects of their child's development and are happier when their children are not playing by themselves.

Fourth, although previous studies have suggested that overall quality of the family day care home is most important for children's development of play behavior, the findings from this study suggest that several "parts" of the quality measured in family day care homes are important in their own right with regards to the levels of children's

social and cognitive play . Perhaps the most interesting finding was that the quality of the space and furnishings in the family day care home was a significant predictor of the quality of the children's cognitive play and social play (i.e., constructive and cooperative play). This information may be useful to family day care providers who often operate within a limited amount of space in their homes. Future studies that focus on this aspect of quality may be able to provide family day care providers with valuable information pertaining to space and furnishings, such as room arrangement in order to maximize the quality of the family day care experience for the children.

Future Research

As presented in the literature review, there are a limited number of research studies pertaining to family day care, and many of the studies of family day care have focused on the comparison between this type of care and other types of care, such as center-based care. In addition research on smaller family day care homes (i.e., those family day care homes which are licensed for eight or fewer children) are absent in the literature on day care. It would be interesting to determine if there is a difference in quality between large family and small family day care homes as well determining if children's play is different in

these smaller homes. Unfortunately, it would be very difficult to recruit participants for a study such as this, due to the fact that published lists of smaller family day care homes are not available due to privacy and safety issues.

Another interesting finding from this study indicated that space and furnishing was a significant factor in the quality of the family day care homes as well as the level of play in which the children engaged. However, it may be difficult to tease out the effects of the personal characteristics of the caregiver and environmental characteristics, such as space and furnishings. For example, in day care centers, there are often corporate policies and guidelines which many times give teachers an agenda on how their classroom environment is to be arranged and what is to be included in the curriculum. In family day care homes, the arrangement and climate of the day care environment is often a function of the caregiver because it is their personal home and in most instances, they develop and provide the curriculum for the children. In essence, in the family day care home, the caregiver is the environment. The findings from this study which indicated that space and furnishings were correlated with many quality issues and was a significant predictor for constructive play may in fact be

a reflection of the caregiver and not necessarily the environmental factors alone. Future studies that focus on characteristics of the individual caregiver (i.e., who they are, why they chose to become day care providers and how sensitive they are) would be extremely helpful in our understanding of the personal influences these caregivers have on the quality within their family day care home as well as the levels of play in which the children engage.

Finally, in order to obtain a greater understanding of the influences of child care, and in particular, the influences of family day care on children's development, we need more consideration of quality issues in the family day care setting. This current study is a "first step" in family day care research to investigate the qualities within family day care and how these qualities influence children's play behaviors, and in particular, children's social and cognitive play behaviors. Findings from this current study will hopefully generate future studies which contribute to the growing literature on family day care.

APPENDIX A: Demographic Characteristics of the Sample

Table 1

Characteristic	Parents	Caregivers
Age (In Years)		
Mean	33.26	41.38
SD	6.86	7.35
Ethnicity (%)		
American Indian/Alaskan Native	4.2	6.3
Asian/Pacific Islander	0.0	0.0
African American	4.2	6.3
Hispanic	4.2	8.3
Caucasian	79.2	79.2
Other	4.2	0.0
Marital Status (%)		
Single	14.6	6.3
Married	64.6	85.4
Divorced	14.6	8.3
Separated	2.1	0.0
Education Level (%)		
Some High School	0.0	14.6
High School Diploma	33.3	33.3
Some College- No Degree	16.7	10.4
Two Year College-A.A. Degree	16.7	33.3
Four Year College-No Degree	6.3	0.0
Four Year College- B.A. or B.S. Degree	10.4	8.3
M.A. or M.S. Degree	2.1	0.0
Degree of MD, JD, Ph.D., or DDS	4.2	0.0
Gross Household Yearly Income (%)		
Less than \$20,000	10.4	4.2
\$20,000 - 25,000	8.3	2.1
\$25,000 - 30,000	2.1	14.6
\$30,000 - 35,000	6.3	8.3
\$35,000 - 40,000	6.3	12.5
\$40,000 - 45,000	10.4	8.3
\$45,000 - 50,000	8.3	18.8
Over \$50,000	43.8	31.3

APPENDIX B: Caregiver Characteristics of the Sample

Table 2a

Number of Own Children	
Mean	2.81
Length of Time Doing Child Care (%)	
3 to 4 years	12.5
4 to 5 years	16.7
5 to 6 years	4.2
6 to 7 years	8.3
7 to 8 years	14.6
8 to 9 years	14.6
9 to 10 years	4.2
Over 10 years	25.0
Number of Children in Their Care	
Mean	11.38
SD	4.46
Number of Caregivers Present During Quality Visit (%)	
One	41.7
Two	52.1
Three	6.3
Number of Child Care Assistants (%)	
No Assistants	14.6
One	29.2
Two	39.6
Three	16.7
Number of Children Present During Quality Observation	
Mean	8.27
SD	3.23
Family Day Care License Capacity (%)	
Six Children	4.2
Eight Children	10.4
Twelve Children	35.4
Fourteen Children	50.0

APPENDIX C: Parent and Target Child Characteristics of the Sample

Table 2b

Parent Characteristic

Number of Own Children	
Mean	2.04
Number of Hours Parent Worked During the Week	
Mean	38.47
SD	14.42

Target Child Characteristic

Age (In Months)	
Mean	38.63
SD	12.88
Gender (%)	
Male	64.60
Female	35.40
Age of Entry into Child Care (In Months)	
Mean	10.74
SD	13.59
Range	0 to 72.00
Length of Time Attending Current FDC Home (In Months)	
Mean	24.12
SD	15.26
Range	.25 to 60
Number of Hours Cared for by Someone Other Than Parent	
Mean	37.51
SD	15.98
Range	4.5 to 67.50

APPENDIX D: Cronbach's Alphas for Family Day Care Rating Scale Quality Subscales

Table 3

FDCRS Quality Subscales	Cronbach's Alpha
Space and Furnishings	.84
Basic Care	.85
Facilitation of Language and Reasoning	.91
Learning Activities	.90
Facilitation of Social Development	.68
Adult Needs	.70

APPENDIX E: Means, Standard Deviations, and Ranges for
Observational Measures

Table 4

Observational Measures	<u>Mean</u>	<u>SD</u>	<u>Score Range</u>
<u>Play Observations (in Minutes)</u>			
Unoccupied Behavior	2.35	5.13	0 - 30
Onlooker Behavior	3.98	7.13	0 - 33
Solitary Play	18.39	18.65	0 - 60
Parallel Play	15.13	12.46	0 - 45
Associative Play	17.09	15.40	0 - 60
Cooperative Play	2.60	5.95	0 - 21
Dramatic Play	16.89	16.71	0 - 60
Games With Rules	.91	2.52	0 - 12
<u>FDCRS Quality Variables</u>			
Space and Furnishings	29.31	5.51	20 - 41
Basic Care	31.06	5.42	23 - 40
Language and Reasoning	28.88	5.86	14 - 37
Learning Activities	39.06	8.08	21 - 53
Social Development	14.33	2.95	10 - 21
Adult Needs	13.58	3.07	7 - 19
Overall Quality	157.84	24.35	99 - 194

N's for observational measures range from 45 to 55.

APPENDIX F: Correlations Between Program Quality Variables and Cognitive and Social Play Observations

Table 5

	Space and Furnishings	Basic Care	Language and Reasoning	Overall Quality of FDC	Parent Overall Satisfaction with FDC
No-Play Behaviors	-.25+				
Unoccupied Behavior			-.37*		
Onlooker Behavior		.33*		.26+	
Solitary Play	-.25+				-.38*
Parallel Play	.26+				
Cooperative Play	.34*				
Functional Play	-.26+				
Constructive Play	.61**	.46**	.51**	.37**	

Note: *p<.05 **p<.01 ***p<.001 +p<.10 (trend)

Endnotes

1. Senate Bill 265 became effective January 1, 1997 and allows family child care home licensees the option to care for two additional children who are at least six years of age. This bill was the result of a five year study that allowed certain family child care homes to care for two additional school-aged children. The results showed this increased the availability of child care for school-aged children. The study also showed that due to the demanding nature of infant care, when additional school-aged children are accepted for care, the number of infants in care should be reduced.

2. The researcher realizes that by only using licensed family day care homes in this study, the results may be skewed due to the fact that most licensed family day care homes may provide a higher quality environment compared to unlicensed family day care homes. However, it would be extremely difficult to locate and recruit unlicensed family day care homes.

3. A Pearson correlation between the frequency of cooperative play and the target children's ages indicated a significant positive relationship between the target children's age and the frequency of cooperative play ($r = .32$, $p < .05$).

4. A Pearson correlation between the frequency of parallel play and group size was $r = .33$, $p < .05$) indicating a significant positive association between play group size and the frequency of parallel play behaviors among the children within the group.

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