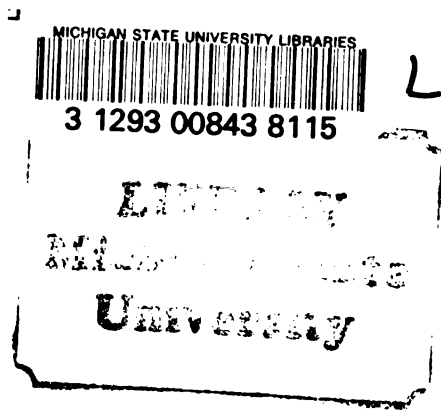




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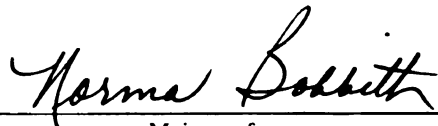
The Relationship Between Observations of  
Affiliative Behavior Patterns for Parents  
and Toddlers and Parental Reports of Care-  
giving, Play and Support-Control Behaviors

presented by

Mark S. Diana

has been accepted towards fulfillment  
of the requirements for

Ph.D. degree in Family Ecology

  
Major professor

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THE RELATIONSHIP BETWEEN OBSERVATIONS OF AFFILIATIVE  
BEHAVIOR PATTERNS FOR PARENTS AND TODDLERS AND PARENTAL  
REPORTS OF CAREGIVING, PLAY, AND SUPPORT-CONTROL BEHAVIORS

By

Mark Steven Diana

A DISSERTATION

Submitted to  
Michigan State University  
in partial fulfillment of the requirements  
for the degree of

DOCTOR OF PHILOSOPHY

Department of Family and Child Ecology

1983



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## ABSTRACT

### THE RELATIONSHIP BETWEEN OBSERVATIONS OF AFFILIATIVE BEHAVIOR PATTERNS FOR PARENTS AND TODDLERS AND PARENTAL REPORTS OF CAREGIVING, PLAY AND SUPPORT-CONTROL BEHAVIORS

by

Mark Steven Diana

The purpose of this study was to extend understanding of affiliative interaction between parents and toddlers and to correlate affiliative behaviors with frequency and type of caregiving activities, play experiences and support-control interactions on the part of mothers with toddlers and fathers with toddlers.

The research was conducted with ten families who had one toddlers between fifteen and twenty-three months of age. Each mother and father worked outside the home twenty or more hours per week in occupations such as minor professionals, small businessmen, clerks, technicians, salesman, skilled craftsman and factory workers or were students. Parents had twelve to seventeen years of schooling and ranged in age from twenty-two to thirty-three years.

Data were gathered using in-home observations and parental self-report questionnaires. Three two-hour observations of parent-toddler interactions were scheduled in family homes to assess type and frequency of parent-toddler affiliative interaction. Questionnaires were used with mothers and fathers to assess type and frequency of parental caregiving activities, play experiences and support-control interactions with their toddlers.



No statistically significant differences were found between mother-toddler and father-toddler affiliative interaction. More similarities than differences were found between mothers and fathers in caregiving activities, play experiences and support-control interactions with their toddlers. Frequency of general care, feeding and rest behaviors were similar for parents while mothers reported doing more cleaning of the toddler than fathers. Parents exhibited similar levels of intellectual, arousal, and exploratory play while statistically significant differences were found between parental reports of verbal and physical support or positive and negative control behaviors with their toddlers.

While no relationships were found between parental caregiving behaviors and parent-toddler affiliative behaviors, relationships were found between affiliative behavior and parental play experiences, and affiliative behavior and support and positive control interactions on the part of parents with toddlers. Increased parental arousal and exploratory play activities were associated with more affiliative behaviors between parents and toddlers. For mothers, higher frequencies of physical support behaviors were correlated with higher frequencies of affiliative interaction toward their toddlers. Positive control interactions by fathers with toddlers were highly correlated with frequency of affiliative interaction between father and toddler. Analysis of the data also suggest that, especially among fathers, higher reported frequencies of support and positive control behaviors are correlated with higher frequencies of play activities with toddlers.

To my Daughter

Emily Charlotte Diana

## ACKNOWLEDGEMENTS

Appreciation is extended to my guidance committee Dr. Norma Bobbitt, Dr. Linda Nelson, Dr. Lillian Phenice and Dr. Richard Featherstone for their direction, support and encouragement during my doctoral program. I especially wish to thank Dr. Norma Bobbitt, Chairperson of my committee, for her willingness to share her insights and expertise with me and for her direction and concern during my program and while writing the dissertation. I am grateful to Dr. Linda Nelson and Dr. Lillian Phenice for the interest and concern each has shown in my educational growth and for the constructive suggestions both made to improve this manuscript. Appreciation is also extended to Dr. Richard Featherstone for the contributions he made to my committee and to my understanding of higher education administration.

In particular, I wish to thank Dr. Margaret Bubolz and the late Dr. Beatrice Paolucci for the contributions each made to my educational experience at Michigan State University and to my understanding of family and of family theory. Gratitude is also extended to Dr. Robert Boger for the contributions he made to my understanding of research during my internship experience at the Institute for Family and Child Studies.

Appreciation is extended to those families who gave of their time and were willing to share their own parenting experience by permitting me to collect data in their homes.

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Special thanks is extended to my parents for their encouragement and support. It is the support, encouragement and understanding of family which provides hope.

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## CHAPTER I

### INTRODUCTION

#### Statement of Purpose

Research and literature related to young children have focused on the first three years of life as a critical time period in a child's total development. Growing emphasis has been placed on intervention and education programs for children and families, recognizing that work with parents is the most effective way to meet the developmental needs of the young child. Researchers, practioners and educators are focusing on the developmental impact of the family on young children and on the importance of the home as a center of learning for all family members (Bobbitt and Paolucci 1975). Realizing the importance of the family in a child's learning and development, this researcher will select variables in parent-child interaction which occur in the home and examine the relationship between these characteristic activities and interactions on the part of parents and toddlers. The focus of this study is on affiliation and on factors influencing parent-toddler interaction, as significant variables in social-emotional development for the child.

Affiliation, as a toddler behavior, just like wariness, curiosity, and attachment, is frequently studied as a component of emotional development for infants and toddlers (Sroufe (1979). Suggested by the research on affiliation, attachment, wariness, and curiosity is the importance of these behaviors in personality formation for the child.

Affiliation and attachment behaviors have been viewed as major factors in social growth and development for young children (Lamb 1977a, Vandell 1979, Lamb 1977b, Stewart and Burgess 1978, and Fox 1977). As parents and toddlers interact, affiliative behaviors on the part of mothers and fathers are seen as significant factors in personality formation for the child. Parental behavior also serves as a model for the child's own behavior. Frequently, too, parents initiate affiliative and attachment interaction so the child receives a great deal of unsolicited affiliative behavior from parents (Stewart and Burgess 1978). By measuring affiliative behaviors of mother, father and toddler, emphasis is placed on the reciprocal nature of the parent-child relationship in this research study (Field 1978, Belsky 1979, and Lamb 1977c).

Multiple variables and reciprocal relationships are included in this research study in order to consider aspects of an ecosystems perspective when examining parent-toddler relationships. A group of families sharing some common environmental experiences will be studied with respect to type and frequency of interaction occurring between parent and toddler. Lamb, reflecting a perspective held by other researchers studying the young child, has stated that "...the process of personality development depends on our willingness to acknowledge the multi-dimensionality and complexity of the child's social environment..." (Lamb 1977a). Development for toddlers is influenced by many factors occurring within the family unit and in the larger ecosystem with which the family interacts. An ecosystem theoretical perspective to the study of family recognizes that interactions among family members, and interactions between the family and its

environment, influence the developmental experiences parents provide for their children and impact on how parents interact with their toddlers (Kantor and Lehr 1975, Bubolz, Eicher and Sontag 1979, Bubolz and Paolucci 1976).

Researchers suggest that differences in affiliative behavior between toddlers, as well as differences in affiliative behavior between toddlers and their parents, may be related to the type of activities parents do with their child, to gender of parent and child, and to characteristics of those mothers and fathers participating in the study (Lamb 1977b, Clarke-Stewart 1978, Belsky 1979, Stewart and Burgess 1978, Waters, Whippman, Sroufe, 1979, Clarke-Stewart, Umeh, Snow, and Pederson 1980). Consideration of similar factors will be done in this research study. Through a series of three in-home observations, assessment will be made of toddler affiliative behaviors toward mother and father. During these observations assessment of affiliative behaviors by mother and father toward their toddler will also be done. A questionnaire will then be administered to mothers and fathers to determine how frequently parents believe they take part in specific activities with their toddlers. Parents will also be asked to provide information related to their education and occupation levels. From the observational and questionnaire data gathered in this study, frequency analysis, t-tests for matched pairs, and correlations will be used to better understand characteristics of the parent-toddler relationship as reflected by affiliative behaviors of parent and toddler and activity and interaction patterns between toddlers and parents. Suggested by this research is an analysis of data emphasizing how often parents engage their toddler in particular activities

including the type and frequency of affiliative behavior observed for toddlers and parents during the in-home observations.

Measurement of affiliative behaviors took place during a series of three in-home observations. The measures of affiliative behaviors in this research are based on typical verbal and physical behaviors used by other researchers to assess affiliation (Lamb 1977a, Lamb 1977b, Lamb 1977c, Stewart and Burgess 1978, and Clarke-Stewart 1977). By coding the type and frequency of affiliative behavior between toddler and parent, the research emphasis will be on the reciprocal nature of parent-toddler interaction (Stewart and Burgess 1978). Attachment, which is often measured along with affiliation, was not assessed in this study since measurement of attachment, as a dimension of social-emotional development, is usually based on situations which are anxiety producing and involve separation of the child from his or her parent (Clarke-Stewart 1978, Clarke-Stewart 1977, Fox 1977, Cohen and Campos 1974). In this study, observations focus on typical in-home situations for toddlers and parents that are not anxiety producing, and instead, through measurement of affiliation alone, reflect the greater independence and detachment characteristic of the child's second year (Lamb 1977d).

Research has suggested that affiliative differences between toddlers, as well as differences in affiliative behavior on the part of toddlers toward each of their parents, relate to adult activity and interaction with the young child (Lamb 1977d, Clarke-Stewart 1978, Burgess 1978, and Belsky 1979). These findings suggest that the nature of parent-toddler interaction could be further explored using self-report questionnaires to determine how frequently parents take part in

specific activities with their child. Information gathered from questionnaires on activity and interaction patterns could then be correlated with affiliative behaviors recorded for parents and toddlers during the in-home observation sessions. Basic information related to occupation, education, and parental work time away from home is assessed with the questionnaire. The questionnaire was also structured to obtain data on the type and frequency of caregiving activities parents participate in with their child. Parents are asked in the questionnaire to report on the type and frequency of play experiences they do with their child. Information on type and frequency of support-control techniques used by parents when interacting with their toddlers, is the third set of questions asked in the questionnaire. Questionnaire data are used along with data from the observations, to determine if a positive or negative relationship exists between the parent-child interaction assessed on the self-report instrument, and affiliative behaviors recorded for toddlers and parents during the in-home observations.

Assessment of this range of variables using the self-report instrument may indicate groups of interaction patterns in families. Correlation of the questionnaire data with information on type and frequency of parent-toddler affiliative behavior suggest that patterns of reciprocal interaction exist between parent and toddler which contribute to social-emotional growth and expression for the toddler. Based on data recorded during the observation sessions, and on data gathered using the self-report instrument with parents, the study will focus on the following research questions in an effort to better understand the parent-toddler relationship.

1

## Research Questions

1. Determine whether there is a difference in how frequently each type of affiliative behavior is recorded for mothers toward their toddlers and fathers toward their toddlers during the in-home observation sessions.
2. Determine whether there is a difference between toddlers and their mothers and toddlers and their fathers in how frequently affiliative behaviors on the part of toddlers toward their parents are recorded during the in-home observation sessions.
3. Determine whether there is a difference in how frequently mothers and fathers report taking part in particular caregiving activities, i.e. feeding, hygiene, rest, and general care with their toddlers.
4. Determine whether the frequency of mother and father caregiving activities with their toddlers, i.e. feeding, hygiene, rest and general care has any relationship to the frequency of affiliative behaviors between parent and toddler recorded during the in-home observation sessions.
5. Determine whether there is a difference between how frequently mothers and fathers report taking part in particular play activities, i.e. play experiences which are intellectual, social, arousal, and exploratory with their toddlers.
6. Determine whether the frequency of mother and father play activities, i.e. intellectual, social, arousal, and exploratory play with toddlers is related to how frequently affiliative behaviors are recorded by parents toward toddlers and toddlers toward parents during the in-home observation sessions.
7. Determine whether mothers and fathers differ in the frequency with which each parent reports using positive verbal and positive physical support interactions with their toddlers.
8. Determine whether there is a relationship between how frequently mothers and fathers report using positive verbal or positive physical support interactions with their toddlers and how frequently specific affiliative behaviors are recorded between parents and toddlers during the in-home observation sessions.
9. Determine whether there is a difference between how frequently mothers and fathers report using positive or negative control behaviors when interacting with their toddlers.
10. Determine whether there is a relationship between the reported use by parents of positive or negative control behaviors with toddlers and how frequently affiliative behaviors between parents and toddlers are recorded during the in-home observation sessions.





11. Determine whether there is a relationship between the frequency of support behaviors reported by mothers and fathers with their toddlers and the frequency of caregiving activities parents report participating in with their toddlers.
12. Determine whether there is a relationship between the frequency of control behaviors reported by mothers and fathers with their toddlers and the frequency of caregiving activities parents report participating in with their toddlers.
13. Determine whether there is a relationship between the frequency of support behaviors reported by mothers and fathers with their toddlers and the frequency with which mothers and fathers report taking part in play activities with their toddlers.
14. Determine whether there is a relationship between the frequency of control behaviors reported by mothers and fathers with their toddlers and the frequency of play activities mothers and fathers report taking part in with their toddlers.

A visual presentation of the relationship between those variables assessed using the research questions is presented in Figure 1.

#### Importance of the Study

Naturalistic observations are used in this research along with individual questionnaires, to determine what relationship, if any, exists between specific activities parents do with their toddlers and the affiliative behaviors recorded between toddlers and parents during the in-home observations. By examining the frequency and type of parent-toddler activities and interactions using the self-report instrument, and measuring the relationship between those variables and the affiliative behavior of toddlers and parents, an understanding may be gained of how particular activities or experiences contribute to the parent-toddler relationship and, in an indirect manner, to social-emotional development of the child (Stewart, Umeh, Snow and Pederson 1980, Pastor 1981).

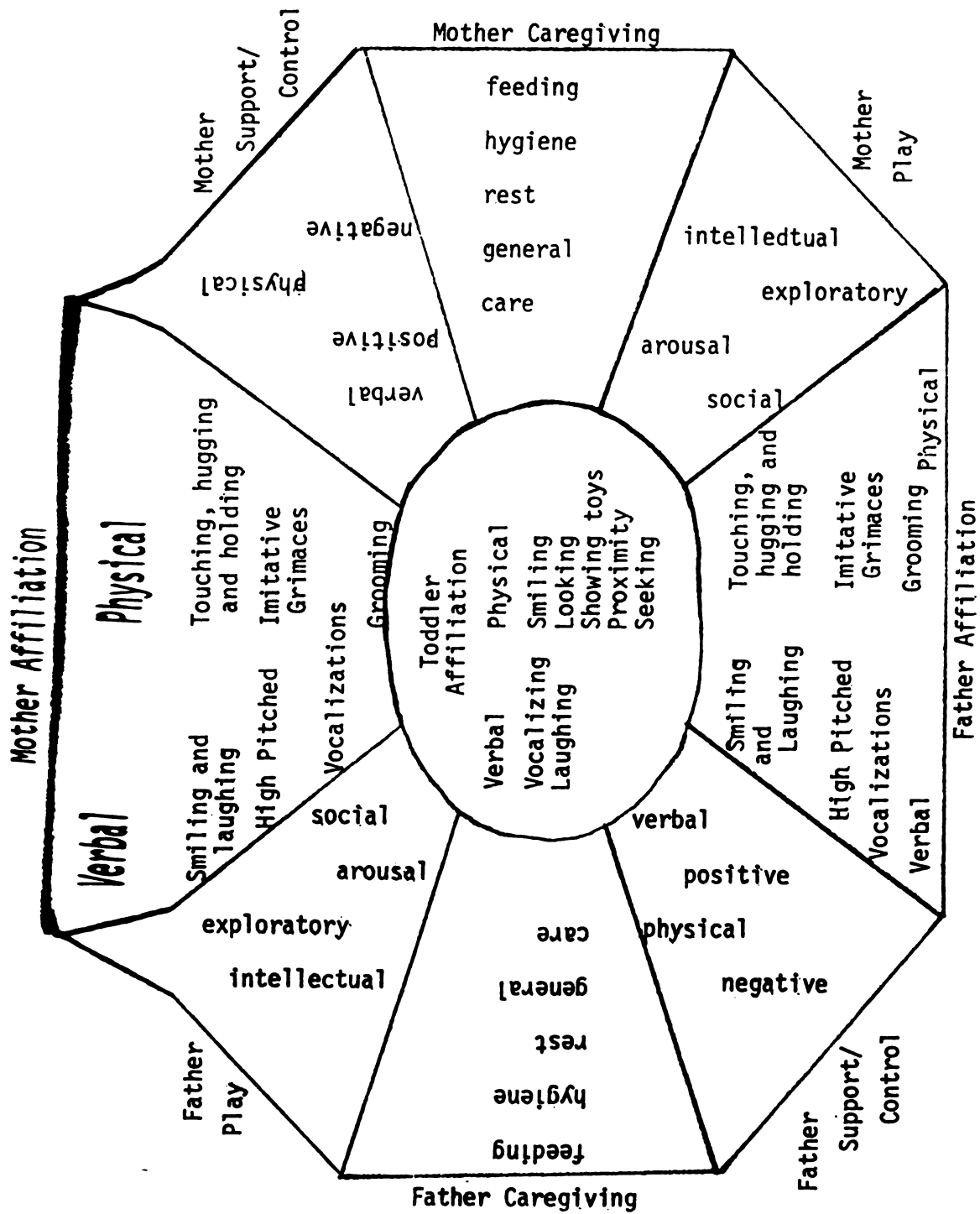


Figure 1  
Categories of Affiliation and Interaction Variables  
Assessed Using Research Question One through  
Fifteen

As a behavior, affiliation is a prosocial activity that includes proximity seeking and contact maintenance between parent and child (Hoch 1980, Mussen and Eisenberg 1977). Studies of affiliation focus on major positive factors in social interaction, placing an emphasis on measurement of those rewards and reinforcements supporting positive interaction between parent and toddler. In this research, toddler affiliation is measured using smiling, vocalizing, looking, laughing, showing toys and proximity seeking (Lamb 1977a, Lamb 1977b, Lamb 1977c, Stewart and Burgess 1978, and Clarke-Stewart 1977). These measures are commonly used in naturalistic and laboratory settings to assess affiliative behavior on the part of toddlers toward their parents.

Though parental affiliative behavior is less frequently assessed, Stewart and Burgess suggest that parents exhibit more affiliative exchanges than any other parental interaction toward their child, that many of these interactions are parent initiated, and that parents display more affiliative behavior than their children do (Stewart and Burgess 1978). Because parental affiliative behaviors are a significant factor in parent-child interaction, these behaviors are recorded in this study during the in-home observations. Categories of smiling and laughing; touching, hugging and holding; imitative grimaces; high pitched vocalizations; and grooming are coded as variables frequently used to measure affiliative behavior on the part of parents toward their toddlers (Field 1978, Stewart and Burgess 1978, Belsky 1979). Consistent with other research on affiliation, coding of both frequency and type of behavior is done to determine how often toddlers display affiliative behavior toward their mothers and fathers

as well as how often mothers and fathers exhibit affiliative behavior toward their toddlers.

Prosocial activities, identified as affiliative behavior, are the consequence "...of distinctive socialization experiences that foster prosocial development" (Mussen and Eisenberg p. 65, 1977). By using the parental questionnaires, this research study will examine several activity and interaction factors involved in toddler socialization. Type and frequency of parental caregiving activity, type and frequency of play interaction between parent and toddler, as well as type of support-control used by parents with their toddler, will be assessed using the self-report questionnaire mothers and fathers complete. Information concerning the amount of time parents are away from home, together with information on gender of parent and gender of child, are included as part of the data gathered in this study.

Traditionally, fathers have been socialized not to participate in nurturing child care, and, therefore, fathers may need additional experiences or time with their toddlers in order to learn appropriate behaviors for meeting a child's emotional needs (Smith and Smith 1980). Research data on parent-infant and parent-toddler relationships indicates similarities with respect to the competence and responsiveness of fathers and mothers when caring for their infants and toddlers (Belsky 1979, Lamb and Lamb 1976, Parke and Sawing 1976, Lamb 1979, Lamb 1976, Vandell 1979, Parke 1979, Field 1978, Weinraub and Frankel 1977). In this research, observations of parent-toddler affiliative behavior, along with self-report measures related to how often mothers and fathers take part in activities with their toddler, are designed to provide information regarding similarities and

differences in the behavior patterns mothers and fathers use during in-home observations which are unstructured in terms of activities parents and toddlers do.

Each research question focuses on one aspect of the parent-toddler relationship. Those variables assessed through the research questions should provide a more detailed understanding of how factors representing activity and behavior patterns on the part of parents and toddlers relate to and make up the reciprocal interaction characteristic of parent-child relationships. Viewed from an ecosystems perspective, this research stresses the human-behavioral component of the family environment. The questionnaire examines roles and patterns of social interaction normally occurring within families. Gathering information with regard to parental activity with toddlers from the perspective of activity type and frequency provides two dimensions from which mother-child and father-child interaction may be studied. Approaching parent-toddler affiliative interaction from a perspective which recognizes the multiple variables contributing to parent-toddler interaction, reflects the varied complex nature of parent-toddler relationships, and may assist in moving the theoretical base of research on affiliative behavior from a symbolic interaction toward an ecosystems perspective in family study.

#### Theoretical Framework

The research questions in this study focus on dyadic interaction between parent and toddler. These interactions are based on affiliative behavior recorded during the in-home observations together with activity and interaction patterns reported on the questionnaires

parents complete. Common interpretations and meaning have been given to the verbal and nonverbal acts and symbols toddlers and parents use when communicating with each other. Controlled observations, in terms of behaviors coded, are used in collecting data on affiliation. From a theoretical perspective, this research fits within an analytic-empirical approach to family study. The second method of data collection is a questionnaire constructed to focus on parenting behavior and parenting tasks which have shared or common meaning for parents and their toddlers. The theoretical approach used in collecting data for this part of the study combines an interpretive theoretical perspective in family study with an analytic-empirical perspective in family theory and research (Brown and Paolucci 1978).

Looked at individually, the research questions in this study fit either a symbolic-interaction perspective or a structural-functional perspective in family research based upon the way aspects of parent-toddler interaction and activities are studied. The symbolic-interaction perspective stresses patterns of communication and interaction with emphasis on the role of actor and reactor. The basic assumption of this theoretical perspective is that meaning is derived through social interaction, making measurement of that interaction of primary importance (Burr, Leigh, Day and Constantine Vol. I). Included in the symbolic-interaction perspective are concepts of parental roles, with emphasis on how those roles affect patterns of parent-child interaction. The parental questionnaire tends to examine information on parent-toddler relationships from a structural-functional theoretical perspective particularly in the areas of caregiving and play. Viewed together, the research questions in this study fit within

an ecosystems perspective in family study. Each question asked of parents, together with the observation data, stresses reciprocal exchange between parent and toddler. As a result, the research questions focus on the interdependence of parent-toddler activity patterns in the home with particular emphasis on the relationship between assessed variables.

An ecosystems perspective focuses on the concept of reciprocal interdependent parts. This theoretical base for family study views the family, or organism, as a unit within a highly structured and intricate environment and integrated with that environment in such a way that the family's relationship to one aspect of that environment is governed by its relationship to all aspects of its environment (Bubolz and Paolucci 1976). The research questions in this study attempt to consider a number of environmental factors which could be identified as part of the Human Ecosystem Model (Bubolz, Eicher and Sontag 1979). An example of the Ecosystem Model, conceptualized by Bubolz, Eicher and Sontag, is included in Figure 2.

The research questions in this study focus on aspects of the Human Behavioral Environment. The affiliative behaviors recorded for parents and toddlers during the observation sessions, along with the parental support-control measures assessed on the self-report questionnaire, fall within a social-psychological dimension in an ecosystems model of the family. The questionnaire section on parental caregiving activities with toddlers includes primarily biophysical and social dimensions of the Human Behavioral Environment.



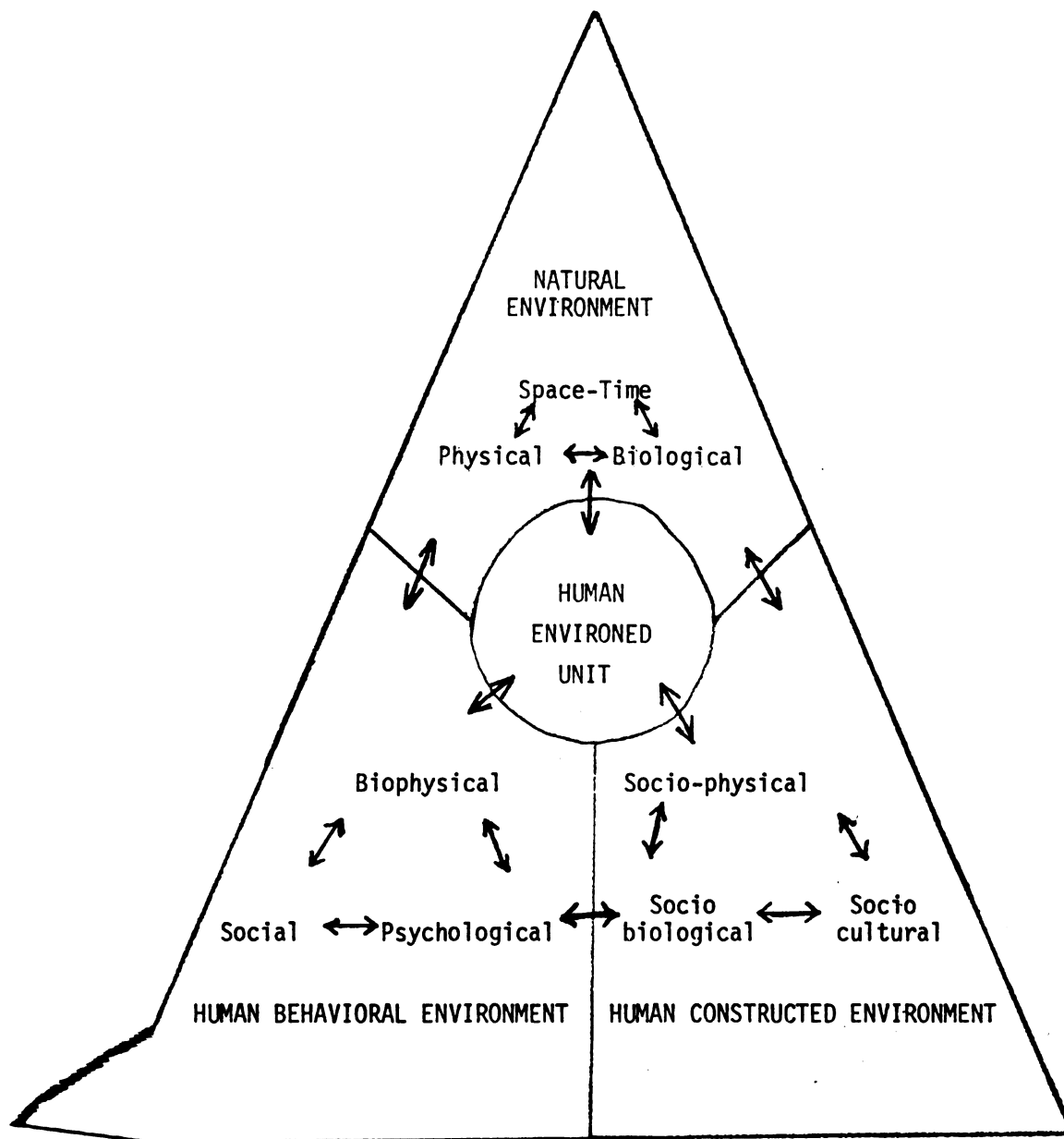


Figure 2

## The Human Ecosystem Model

from "The Human Ecosystem: A Model," by Margaret M. Bubolz, Joanne B. Eicher, and M. Suzanne Sontag, Journal of Home Economics, Spring 1979, p. 29.

Components of the Human Constructed Environment are included in the parental questionnaire and in the sample selection method used to locate and identify families for this study. Frequency of caregiving activities, frequency of play activities, and frequency of support-control interactions are based on socio-physical, socio-cultural, and socio-biological factors influencing parent-toddler interaction and the parent-toddler relationship. Both type and frequency of parent-toddler interaction are affected by socio-cultural, socio-biological and socio-physical aspects of parent-toddler interaction. For example, parents in the selected families are employed or attend school away from home twenty or more hours per week. This family configuration involves a socio-cultural pattern increasingly common in this society and impacting on the physical and biological environment in which parents and toddlers live. At the same time, these factors affect how often parents engage in caregiving activities, play activities and support control interactions with their toddlers. Time, a factor identified as part of the natural environment, is assessed by determining how frequently parents take part in specific caregiving tasks with their child, in play activities with their toddler, or make use of support-control behaviors during parent-toddler interaction. Components of the physical and biological environment are included in the questionnaire. Questions on caregiving are related to parents meeting the biological needs and physical care needs of their toddlers. Included as part of the questions on play are components of the physical environment which affect play activities for toddler and parent, especially where the amount of play space available in the home may limit what activities parents and toddlers do together.

For families taking part in this study, some aspects of the Natural Environment and Human Constructed Environments are similar. Each family resides within a ten mile radius of an urban industrial area thus sharing some common environmental experiences geographically in terms of air, water, climate and land resources. The institutions and organizations with which families have contact also include similarities, since each family in the study falls within a common social status range, as identified by Hollingshead's 1975 four factor index of social status (Hollingshead 1975).

Approaching this study of parent-toddler affiliative interaction in a manner which takes into account the caregiving activities, play experiences, and support-control interactions of parents with their toddlers, provides a more wholistic view of affiliative interaction between parent and toddler. Clustering or grouping this data is consistent with an ecosystem perspective to family study reflecting the interrelationship between parent-toddler affiliative behavior and the social-emotional development of the child.

#### Rationale for Selection of Families

Several criteria were used to select families for this study. First, all families selected lived within an urban industrial area. These selection criteria were used to increase the homogeneity of the families selected for the study. Second, the mother and father in each family spend a minimum of twenty hours per week working outside the home. Parents in the study worked as small business operators, as paid employees, or as full time students. Work criteria, along with education level, were used for family selection to limit the diversity

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of families in the study, to reflect dual employment and dual career life styles, and to define family social status.

A third criterion in selection was that each family have one child, a toddler, between fifteen and twenty-three months of age. One child families were chosen to facilitate coding during the observation sessions. Since during each two-minute observation, the researcher coded twenty-two different behaviors between toddlers and parents, observations with two children families would have more than doubled the number of potential affiliative behaviors, making it impossible for one observer to record all interactions.

It was recognized that each family in the study would make different child-care arrangements for their toddlers. However, since no toddler spent more than four days per week in care situations involving regular contact with other children, no attempt was made to control or measure these interactions. It was expected that contact on the part of toddlers with other children and adults in child care, with friends or with relatives, varied from family to family in the study.

#### Assumptions

In selecting families for this research, some assumptions were made concerning all parents and toddlers, particularly those parents and toddlers who agreed to participate in the study. Assumptions were also made with respect to the activities and interactions used by the researcher on the parental self-report questionnaire. The assumptions included the following:

1. All toddlers and parents demonstrate affiliative behaviors with each other during the course of daily parent-child interaction.

2. Affiliative behaviors on the part of toddlers and parents with each other are a measure of the emotional relationship existing between parent and toddler.
3. Affiliative behaviors between toddlers and parents, as observed and coded by the researcher, approach affiliative interaction patterns similar to toddler-parent interaction patterns in other situations.
4. Gender of parent, gender of child, parental caregiving activities, parental play experiences, and parental support-control interactions are among the significant variables contributing to affiliative interaction between parent and toddler.
5. Individual questionnaires administered to mothers and fathers reflect parental perceptions and interpretations of interaction between parent and toddler.
6. Questions related to caregiving activities, play experiences, and support-control interactions between parent and toddler reflect activity and interaction patterns typical of parent and toddler with one another.

#### Definition of Terms

Throughout this study, common terminology is used. To establish common meanings, the following definitions were used during this research study:

**Affiliative Behaviors.** Those words or actions, including physical proximity seeking and visual contact between toddlers and parents which are directed in friendly interactions with adults and children (Lamb 1976a). Affiliative behaviors are encouraged by the presence of an attachment figure even though affiliative activities are not specifically related to attachment behavior (Lamb 1976a).

**Smiling.** Grinning or smiling without vocalization that indicates a positive response on the part of the toddler toward mother or father.

**Vocalizing.** Verbal expressions that include sounds and words directed toward the toddler's parent.

**Looking.** Facing and viewing the parent with attention directed toward the parent's verbal and physical actions.

**Laughing.** Verbal and physical displays of happiness and pleasure on the part of toddlers toward their parents.

**Showing Toys.** Offering or handing toys to parents to obtain attention or encourage play interaction.

**Proximity Seeking.** Moving within close physical proximity of mother and/or father to obtain parental attention and interaction.

**Smiling and Laughing.** Verbal and physical expressions of pleasure or happiness directed by parents toward their toddlers.

**Touching, Hugging and Holding.** Physical expressions of affection or support on the part of parents toward their toddlers.

**Imitative Grimaces.** Parental facial expressions which show reaction to the speech, play and gestures of toddlers.

**High Pitched Vocalizations.** Parental speech that includes a raised tone or voice encouraging toddlers to interact with their parent.

**Grooming.** Parental behaviors with toddlers that involve hair combing, cleaning, clothes arranging, shoe tying or other physical caregiving behaviors demonstrating parental interest and concern about the toddler's appearance.

**Intellectual Play.** Those experiences and activities which place emphasis on language development, visual and auditory stimulation, or on discovery of new spatial and sequential relationships through the use of eye-hand coordination skills.

**Social Play.** Those activities, with and without props, which involve imitation and pretend play modeled on the daily activities toddlers experience.

**Arousal Play.** Those experiences and interactions which are stimulating and help promote excitement and emotional response on the part of toddlers.

**Exploratory Play.** Those experiences which emphasize new sequences, new order or new spatial relationships between objects.

**Independent Play.** Those play activities children take part in on an individual basis.

**Cooperative Play.** Those play activities children engage in, share, do beside, or along with other children.

**Support.** Those verbal and physical behaviors initiated by parents to make the child feel more comfortable and accepted. Praise, encouragement, physical affection, cooperation, and expressions of endearment are among the reinforcement factors used in support interactions (Rollins and Thomas 1979).

**Control.** Parental direction of the child's behavior and activity. Techniques can be positive or negative and involve verbal as well as physical means of control (Rollins and Thomas 1979).

#### Limitations

1. The study is limited to ten families. Each family in the study has one child between fifteen and twenty-three months of age.
2. Non-traditional family types were not included in the study. Those families selected were ones with a nuclear father-mother-child configuration.



3. Each family identified to take part in this research was a family where mother and father were both employed or attending school away from home for twenty or more hours per week.
4. Families selected for this study were identified through contact with churches, with day care centers, and by referral on the part of other families already participating in the study.
5. Both sample size, and method of sample selection, limit the generalizability of the data on parent-toddler affiliative behavior and the data on parent-toddler activity and interaction patterns studied through these research questions.

## CHAPTER II

### REVIEW OF LITERATURE

#### Conceptualizing Affiliation as a Reciprocal Developmental Process

Personality formation and emotional development are primary family goals in socialization of young children (Lamb 1977a, Sroufe 1979, Smith and Smith 1980). Research has assessed social-emotional development of infants and toddlers by studying attachment, wariness, affiliation, curiosity and exploration (Sroufe 1979). Most research on social-emotional development for infants and toddlers stresses affiliation and attachment behaviors exhibited by toddlers toward their parents.

The literature recognizes parent-toddler affiliation and attachment as a reciprocal process with the child receiving a great deal of affiliative and attachment behavior directed by parents toward the toddler (Stewart and Burgess 1978). Research studies of affiliation and attachment portray the dynamic, and reciprocal nature of the parent-toddler relationship with affiliative interaction functioning as a reinforcement for further affiliative behavior (Lamb 1977c, Field 1978, Belsky 1979, Stewart and Burgess 1978).

Attachment behavior between toddler and parent is usually measured using negative reactions to parent-child separation, together with positive reactions to parent-child reunion (Clarke-Stewart 1977, Lamb 1976a, Vandell 1979). The tendency in attachment research has been to

use laboratory or structured in-home situations to assess the stress related response of infants and toddlers to separation from mother and/or father. These results, at times, represent measures of dependency and, since stress situations are used, are more accurate indicators of insecurity than of attachment (Lamb and Lamb 1976, Lamb 1976a). Attachment is a major factor in social development for infants and toddlers, with attachment needs strongest during the child's first year. In contrast, the toddler's second year represents a time of detachment (Lamb 1977d, Sroufe 1979). Developmental change during the second year, together with familiar surroundings and low anxiety characteristic of the home suggest that parent-toddler affiliative behavior may be a more accurate indicator of positive social-emotional exchange than is attachment behavior. Studies of affiliation measure major positive features of family social interaction and attempt to understand that interaction in terms of the rewards generated for child and parent (Mehrabian and Ksionghy 1974).

#### Measuring Affiliative Behaviors

The presence of attachment figures such as mother and father, encourages affiliative behavior. Thus, the frequency with which affiliative behavior is displayed by toddlers toward parents and parents toward toddlers conveys information concerning the initiation and flow of parent-child interaction. Studies show parent-toddler affiliative behavior does not imply a preference for, nor is it a measure of, attachment (Lamb 1976a, Lamb 1977b). Instead, affiliation relates to interaction and activity patterns of parents and toddlers, with parental behavior a primary factor influencing the frequency and

type of affiliative interaction between parent and toddler (Lamb 1976a, Lamb 1977b, Clarke-Stewart 1977, Field 1978, Belsky 1979). How frequently parents take part in activities with their child has a natural impact on the parent-toddler relationship. Gender of parent, gender of child, parent occupation, and parent education level, together with the amount of time parents spend with their child, are variables that influence parent-toddler affiliative behavior and impact on the parent-toddler relationship.

Toddler affiliation toward mother and father is measured by researchers using both verbal and physical behaviors. Smile, vocalize, Look, laugh, proffer or show, and proximity seeking are the behaviors researchers use to assess parent-toddler affiliation (Lamb 1977c, Clarke-Stewart 1977). Verbal and physical interaction is also used to measure parental affiliative behavior. Basically, affiliative behavior, whether initiated by parent or toddler, involves the ability of mother, father and toddler to engage each other in play and in other interactions typical of the toddler age.

#### Factors Influencing Affiliation

Research suggests that personality, or social-emotional development, is related to differences in family affiliative behavior, reflecting change in the type and frequency of parental interaction between infants and toddlers. Several factors in the family environment impact on parent-toddler interaction (Lamb 1977c). The natural environment in which the family lives and works, the family's economic situation, health of family members, the family's network of relatives and friends, family values and traditions, and family

interaction patterns are among the multiple environmental variables influencing parent-toddler interaction.

#### Comparing Parental Caregiving

Research also shows that gender of parent and gender of toddler have direct and indirect effects on parent-toddler interaction. Mothers are thought to have a more direct influence on personality formation and development for their child since mothers are more involved in childrearing and daily caregiving activities than fathers. Recent research shows fathers to be as competent and responsive as mothers when providing care for their toddlers, with more similarities than differences in the caregiving and interaction styles of mothers and fathers (Lamb 1979, Weinraub and Frankel 1977, Vandell 1979). These similarities in competence and responsiveness are most closely associated with parental ability at engaging toddlers in play and other interactions.

#### Parent Interaction Styles

Comparisons have been made between parents who are primary caretakers, i.e. parents who take major responsibility for their child's daily care, and parents who are secondary caretakers. These findings indicate that primary caretakers, whether they are mothers or fathers, display similar levels of competence, similar levels of experience, and similar patterns of interaction when relating to their toddlers. Primary caretakers do more smiling, make more imitative grimaces, and use more high-pitched vocalizations than non-primary caretakers do. Toddlers in this research showed affection and

responded in a similar manner toward primary caretakers regardless of whether that adult was the child's mother or father (Field 1978). This suggests that frequency of contact is more significant than gender of parent in determining interaction style between parent and toddler.

#### Frequency of Parental Caregiving Activities

In most families, mothers who are primary caretakers assume major responsibility for childrearing of their toddler during the first several years (Creno and Arnoff 1978, Parke and Sawin 1976). In families where the mother is not employed outside the home, she spends most of her time involved in feeding and cleaning behaviors to meet the toddler's need for physical care (Belsky 1979). Research by Kotelchuck found sixty-four percent of all mothers had full responsibility for daily caregiving tasks with their toddlers (Kotelchuck 1976). This same study found twenty-five percent of all fathers regularly involved in caregiving activities with their toddler. Parent education level influences the parent-toddler relationship with fathers who have a high level of education participating in more shared tasks related to child care than less educated parents do (Perrucci, Potter and Rhoades 1978).

Experiences parents share with their toddler are influenced by the amount of time mothers and fathers have to participate in activities with their child. Parental time at home not only influences the type of activities parents do with their child but also the intensity of parent-child interaction during the time mother and father are at home (Perrucci, Potter and Rhoades 1978, Pederson and Robinson 1969, Kotelchuck 1976, Vandell 1979). These findings suggest that where mother and father work outside the home, there may be more sharing of

child care tasks by parents, along with more similarity in the type of play activities parents do with their toddlers.

#### Describing Parent-Toddler Play

In most families where mother is home during the day, she takes part in more caregiving tasks than father. However, research shows that fathers are more involved in play with their toddlers than mothers, particularly when the amount of time fathers have to interact with their child is taken into account (Parke 1979). Differences exist in the reported data. Clarke-Stewart's research found similar results when play was viewed as toddler initiated behavior toward mother and father (Clarke-Stewart 1977). Clarke-Stewart saw no difference in the daily play record, the rate of play quality, the frequency of play, or the proportion of child-parent play interaction recorded on the part of toddlers toward their mothers and fathers.

#### Characteristics of Parent Play

Differences do exist in typical play interaction for mothers and fathers. Fathers engage in more arousal and exploratory play, with social-physical activities that include fewer containing behaviors, than are true for mothers (Clarke-Stewart 1977, Belsky 1979, and Field 1979). Studies found toddlers more cooperative, close, involved and interested in play with their fathers than in play with their mothers. Play on the part of mothers with their toddlers tends to be more structured and includes play with toys which are intellectual or social in nature (Clarke-Stewart 1977, Zegib, Arnold and Forehand 1975). Mothers use more positive verbal behaviors, encourage more independent

play, and seek an optimal level of child participation during play when compared to fathers (Clarke-Stewart 1977, Weinraub and Frankel 1977, Zegib, Arnold and Forehand 1975). Parke summarizes the differences between mothers and fathers by stating that "...father's play is likely to be physical and arousing rather than intellectual, didactic or mediated by objects as is the case for mothers" (Parke 1979, p. 570).

#### Characteristics of Toddler Play

Gender of child also influences parent-toddler play. Fathers and mothers both use more active play behaviors with boys than they do with girls. As a result, boys demonstrate greater feelings of power with more aggressive active interactions than girls do. In most situations, mothers and fathers provide much less reinforcement for active play by girls and instead reinforce social and intellectual play (Hoffman and Saltzstein 1967, Tauber 1979, Lamb and Lamb 1976). Play between parents and toddlers of the same gender also has unique qualities. Research indicates that parents talk to, sit on the floor with, and share play more with infants and toddlers of the same gender than with infants and toddlers of the opposite gender (Weinraub and Frankel 1977, Belsky 1979). These findings suggest that differences in the mother-daughter and father-son relationship not only reflect the type of play activities parents engage in with toddlers of the same gender but also the frequency and type of affiliative behavior patterns parents and toddlers express with each other.



### Identification of Play Categories

Categories of play are best defined by the kind of activities taking place between parent and toddler. Social play, intellectual play, arousal play, and exploratory play are among the interaction categories researchers identify (Belsky 1979, Clarke-Stewart 1978, Parke 1979). Within each play category, there are a variety of play activities which can be used to determine the frequency of parent-toddler interaction. Intellectual play can be assessed using activities such as puzzle play, block building, and looking at books. Doll centered play, play with stuffed animals, and songs and rhymes are used to assess social play. Social play frequently includes modeling of parental caregiving and nurturing behaviors, imitation of animals and objects, as well as shared interaction with other children and adults. Arousal play experiences tend to be highly stimulating with tickling, roughhousing, tumbling, bouncing and riding games typical of this play style. Exploratory play tends to be more tactile in nature involving eye-hand coordination, with stacking toys, connecting and lacing toys, toys for sorting, small mechanical toys and small building toys all specific examples of exploratory play (Lowe 1975, Fein 1975, Col lard 1971). Toddler play can also be studied in terms of how often children engage in play which is independent or in play which is cooperative in nature (Belsky 1979, Clarke-Stewart 1978, Parke 1979).

Play activities between toddler and parent generally include elements of parental instruction. These play experiences help socialize children and involve sharing objects to increase the amount of partner play (Weinraub and Frankel 1977, Rheingold, Hay and West 1976). Research shows relationships between parent and toddler gender,

affiliative interaction of parent and toddler, and frequency and type of parent-toddler play interaction (Clarke-Stewart 1978). Active play by fathers is associated with higher levels of affiliative behavior by toddlers toward fathers, particularly when the active play style of fathers is compared with intellectual and social play patterns typical for mothers and toddlers (Clarke-Stewart 1977, Zegib 1975).

#### Guiding Toddler Behavior Through Parental Interaction

As parents direct their toddler's activities, they use specific interactions or behaviors on a conscious and subconscious level to provide support for, as well as control of, their toddler's behavior and interaction. Support behaviors help toddlers feel a sense of approval, become more comfortable with parent activities and feel secure about themselves. Parenting behavior involving warm loving contact promotes a sense of toddler trust toward parents (Clarke-Stewart 1977). High levels of parental affiliative behavior toward toddlers is consistent with high levels of parental support behaviors. It is unlikely, however, that an inverse relationship exists between parental support behaviors toward toddlers and toddler affiliative behavior toward parents when parent and child have already established a trusting relationship.

#### Parental Support Behaviors with Toddlers

Encouragement, help, cooperation, expressions of praise and Physical affection are all examples of parental support behaviors with Children (Rollins and Thomas 1979). Frequency of parental support behavior is also an indication of the amount of positive reinforcement,

or the frequency of positive social sanctions, directed toward toddlers by their parents (Rollins and Thomas 1979, Schaeffer and Crook 1979).

Support interactions, like other communication within the family, can be characterized as a reciprocal process. Children receive and elicit positive parental responses that result in, and reinforce, positive social and behavioral outcomes (Roberts 1979). Support interactions are composed of behaviors which have been identified as a process of verbal and physical giving and receiving (Stewart and Burgess 1978).

Differences in parental support behavior toward toddlers exist for a variety of reasons. Gender of parent and gender of child are factors influencing parental support behavior. Mothers are often more verbal when interacting with toddlers while fathers engage in more physical behaviors with their young child (Zegiob 1975, Parke 1979). Both mothers and fathers use more positive behaviors when interacting with their daughters than they do when interacting with or relating to their sons (Tauber 1979, Hoffman and Saltstein 1967).

#### Parental Control Behaviors with Toddlers

The parent-child relationship is also a power relationship, with parents mediating rewards either using positive reinforcement or through the use of parental pressure and negative sanctions so that children behave according to the desires of their parents (Rollins and Thomas 1979, Baumrind 1967). Giving instructions and directions, making and explaining rules, threatening punishment, scolding, and physical punishment are behavioral examples of power or control techniques parents use with their toddlers. While more frequent use of

parental control may be negatively associated with parent affiliative behavior, it is not clear what association, if any, would be expected between frequency of parental control behaviors and frequency of toddler affiliative behavior. Higher frequencies of parental control may increase toddler trust and dependence on parental figures while decreasing the toddler's confidence level. As a result, toddlers demonstrate a greater frequency of affiliative behavior toward parents who more frequently engage in control interactions (Rollins and Thomas 1979). The type and frequency of parental control behavior varies according to parental gender. Mothers take part in more structured activities with their toddlers, are inclined to establish routines, make rules, and use directions with their toddlers to a greater extent than fathers (Zegiob and Forehand 1978, Vandell 1979).

#### Relating Factors of Affiliation, Caregiving, Play and Support and Control

Whether there is a relationship between parental control behaviors and parental caregiving and play activities, or between parental support behavior and parental caregiving and play activities with toddlers, raises several interesting questions for further study. The literature previously cited on affiliation, caregiving, and play research, together with a 1982 ethnographic study by the researcher, suggest that higher frequencies of parental support interactions toward toddlers may be associated with (1) higher frequencies of parent-toddler play activities, especially social play, (2) higher frequencies of parent-toddler caregiving activities and (3) higher frequencies of affiliative interaction between parents and toddlers. On the other hand, higher levels of parental control interactions may be associated



with (1) higher frequencies of toddler affiliative behavior toward parent, (2) lower levels of parent affiliative behavior toward toddlers and (3) lower frequencies of parent-toddler play interaction (Lamb and Lamb 1976, Lamb 1976a, Clarke-Stewart 1977, Field 1978, Weinraub and Frankel 1977, Kotelchuck 1976, Clarke-Stewart 1978, Belsky 1979, Diana, Field Notes: Ethnographic Family Study with Father-Mother-Toddler, 1982).

While direct relationships between parental support-control behaviors and other parent-toddler interaction, i.e. affiliative behaviors, caregiving activities, and play experiences, are not established in the research literature, consideration of these dimensions in parent-child interaction is of value in gaining more complete insight into those interaction variables in the family which significantly effect parent-toddler relationships and impact on social-emotional development for the child.

In this review of literature, research implications and results are cited to focus on findings which influenced the development of this researchers questions and selection of factors appropriate to the study of parent-toddler relationships. Methodologies for research cited in the literature review have not been analyzed. Since the literature cited appears in refereed journals, the focus of this review has been on the contribution each work makes to new understandings of affiliative behavior in the parent-toddler relationship. Focus has also been placed on those concepts in the cited research which relate to this researcher's study of parent-toddler affiliation, activity and interaction patterns.

### CHAPTER III

#### METHODOLOGY

This research was conducted to extend understanding of interaction taking place between parent and toddler. In-home observations of affiliative behavior between parent and toddler were conducted to determine whether a relationship exists between parent-toddler affiliative behavior and the frequency and type of parental caregiving activities, of parent-toddler play experiences, and of parental support-control interactions.

This chapter on methodology will be divided into five sections: selection of families, description of selected families, development of assessment instruments: observational chart and questionnaire, procedures for data collection, and procedures for data analysis.

#### Selection of Families

The original criteria established to select families for this study were: 1) each family would have a traditional father-mother-child configuration; 2) families would have only one child, a toddler between twelve and eighteen months of age living at home; 3) each family would be Caucasian; 4) families would have a church affiliation with referrals made by their ministers; 5) each family would fall within a specific social strata range as defined by Hollingshead using his Four Factor Index of Social Strata; 6) both mother and father would be employed or attend school outside the home twenty or more hours per





week; 7) and each family would live within a ten mile radius of an urban industrial area. These selection criteria were established for several reasons, with the rationales for making each selection listed in Figure 3.

Initial efforts to locate families willing to participate in this study were made through telephone contact with church ministers. Occasionally, this initial contact also included conversations with designated church members. When location of families meeting the above criteria became difficult, additional church groups were contacted and, at the same time, efforts were made to locate families through referral by child care center directors and family day care home providers. In order to identify a sufficient number of families and, at the same time, maintain a four to six ratio between male and female toddlers in the study, two selection criteria were modified. 1) A change was made in the toddler age range so toddlers in the study fell between fifteen and twenty-three months of age rather than between twelve and eighteen months of age; and 2) families referred for participation in the study were from sources in addition to family ministers.

In all cases, initial referral of families was made by a minister, was based on the recommendation of a family friend, or was made by the director of a child care program in which the toddler was enrolled. Those individuals making initial referrals were asked to screen out families experiencing high levels of stress, marital conflict, health difficulties or adjustment problems associated with the parent-toddler relationship. As a result, families in this study were all at a similar point in the family life cycle, with at least some common values and some shared environmental backgrounds.

<u>Criteria</u>	<u>Rationale</u>
Each family would include a father, mother, child configuration with that child being a toddler.	<ol style="list-style-type: none"> <li>1. To permit the study of mother-father differences.</li> <li>2. To increase the homogeneity of the selected group of families.</li> <li>3. To facilitate recording and collection of observation data.</li> </ol>
Toddlers between 15 and 23 months of age.	<ol style="list-style-type: none"> <li>1. To permit proper assessment of age appropriate affiliative behaviors for toddlers.</li> <li>2. To increase similarity of behavior and interaction patterns by limiting the toddler age range.</li> <li>3. To maintain consistency between child age range and the type of activities and experiences reported on the parental self-report questionnaire.</li> </ol>
Mothers and fathers are both employed or attend school outside the home for 20 or more hours per week.	<ol style="list-style-type: none"> <li>1. To increase the homogeneity of the selected group of families.</li> <li>2. To reflect current trends among young urban families.</li> <li>3. To increase similarity between mother and father regarding the amount of time parents and toddlers have available to interact with each other.</li> </ol>
Each family would be Caucasian, would have church affiliation, and share a similar social strata as defined by Hollingshead's Index of Social Status.	<ol style="list-style-type: none"> <li>1. To increase the homogeneity of the selected group of families.</li> <li>2. To increase the similarity of toddler life experiences.</li> </ol>
Urban residence.	<ol style="list-style-type: none"> <li>1. To increase the homogeneity of the selected group of families.</li> <li>2. To facilitate data collection.</li> </ol>

Figure 3

Selection Criteria for Families Participating in Study

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The first contact the researcher made with each family was by telephone. At that time, parents were given general information about the study along with an opportunity to ask questions concerning the research. A follow-up letter was sent to families who were referred by their ministers. A copy of that follow-up letter is included in Appendix A. During the initial telephone conversation, approximately sixty percent of the families contacted either did not meet all the selection criteria or did not wish to be part of the research study. Ten percent of the families contacted said they did not wish to take part in the study when given the following detailed information during the initial telephone contact with the family.

During the initial telephone contact with the family, parents were informed that the research would include four in-home visits scheduled during a time when both father and mother would be home with their toddler. Second, parents were advised that the first visit would include time for parents to become acquainted with the researcher, time to ask additional questions about the study, and, that during the first visit, both parents would be asked to sign a consent form for their Participation and the toddler's participation in the study. A copy of the consent form approved for use by Michigan State University is included as part of Appendix A. Third, each family was informed that data collection would take place during the second, third and fourth visits and that each visit would be two hours in length and would involve observation of parent-toddler activity and interactions. Also they were informed that these visits would be scheduled during the morning, afternoon and evening. Parents and toddlers were encouraged to take part in activities parents feel are typical for them during the

time each observation visit was scheduled. Fourth, parents were informed that during the final observation visit mother and father would each be asked to complete an individual self-report questionnaire regarding activities and interactions with their toddlers. Parents were assured that these questions had no right or wrong answers, and that neither the parents nor their toddlers would be evaluated through the observation or questionnaire process.

During the first get-acquainted interview, additional selection took place. While no family who kept their initial appointment declined to take part in the study, the researcher did exclude two families who, during the course of the initial interview, were found not to meet the established selection criteria. In one family, the child was under fifteen months of age and in the second family only one parent worked outside the home more than twenty hours per week.

#### Description of Selected Families

The group of families selected for study included ten Caucasian families residing within an urban industrial area. Each family participating in the study had one toddler between fifteen and twenty-three months of age. Six of these toddlers were girls, while four of the children were boys. These families were relatively young with parents ranging between twenty-two and thirty-three years of age. Each mother and father participating in the study worked outside the home twenty or more hours per week so that each family made arrangements for alternative child care during the time periods when mother and father were away from home. Based on Hollingshead's Four Factor Index of Social Status, which uses the education and occupation level of mother

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and father to determine a composite family score, each family in the study could be classified within two social strata levels. These levels, two and three, Hollingshead has called medium business, minor professional, technical, skilled craftsman, clerical and salesworker in identifying general occupation categories (Hollingshead 1975).

Descriptive information regarding families in this study is available in Figure 4. These data include the following information for each family: parent education, parent occupation, parent age, the number of hours each parent works outside the home, sex of child, and the age of each toddler. Education levels for participants fell within a five year range from twelve to seventeen years of schooling.

Occupations of fathers and mothers included factory workers, teacher, receptionist, photographer, clerks, students, counselors and salesmen. The number of hours parents worked outside the home included a range of twenty to fifty-eight hours per week with the majority falling between forty and forty-five hours per week. Parents taking part in the study range in age from twenty-two to thirty-three years while toddlers were between fifteen and twenty-three months of age.

#### Development of Assessment Instruments: Observation Chart and Questionnaire

This section will consider two aspects of the developmental process important in formation of the observational chart and parental self-report questionnaire used to gather data for this study. First, the rationales used to develop this observation chart and parental self-report questionnaire will be presented, together with technical factors significant in organizing each measurement tool.

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Nine:

Ten:

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Number of Family	Toddler: Age/Gender	Age/Education/Occupation/Hours Out of Home			
		Mother:		Father:	
One:	Age 16 mo. Gender F	Age 31 Educ. 14 yr. Occup. Bookkeeper Hrs. 40		Age 25 Educ. 12 yr. Occup. Truck Driver Hrs. 50	
Two:	Age 16 mo. Gender F	Age 24 Educ. 16 yr. Occup. Caseworker Hrs. 40		Age 33 Educ. 15 yr. Occup. Retail Serv. Hrs. 55	
Three:	Age 23 mo. Gender F	Age 22 Educ. 13 yr. Occup. Receptionist Hrs. 40		Age 27 Educ. 14 yr. Occup. Photographer Hrs. 40	
Four:	Age 20 mo. Gender F	Age 22 Educ. 14 yr. Occup. Clerk Hrs. 40		Age 23 Educ. 14 yr. Occup. Technician Hrs. 48	
Five:	Age 19 mo. Gender M	Age 25 Educ. 14 yr. Occup. Student Hrs. 20		Age 32 Educ. 16 yr. Occup. Teacher Hrs. 55	
Six:	Age 15 mo. Gender M	Age 26 Educ. 16 yr. Occup. Nurse Hrs. 40		Age 29 Educ. 14 Occup. Sm. Business Hrs. 45	
Seven:	Age 22 mo. Gender F	Age 22 Educ. 12 yr. Occup. Student Hrs. 20		Age 26 Educ. 14 yr. Occup. Painter/mgr Hrs. 54	
Eight:	Age 19 mo. Gender M	Age 27 Educ. 13 yr. Occup. Factory Hrs. 50		Age 30 Educ. 12 Occup. Factory Hrs. 58	
Nine:	Age 15 mo. Gender M	Age 28 Educ. 13 yr. Occup. Retail Clerk Hrs. 20		Age 29 Educ. 12 yr. Occup. Counselor Hrs. 40	
Ten:	Age 22 mo. Gender	Age 31 Educ. 16 yr. Occup. Program Coor. Hrs. 40		Age 33 Educ. 17 Occup. Salesman Hrs. 45	

Figure 4

Descriptive Data for Family Units in the Study

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The methods of data collection used in this study include two research techniques. Observations, together with parental self-report questionnaires, were used as combined assessment strategies. This approach provided more indepth understanding of parent-toddler interaction and behavior patterns through research observations while parent-toddler activity and interaction were assessed using self-perception reports by parents (Parke 1979).

#### Observational Chart

The observational chart includes space to code twenty-two different behaviors between mother and toddler and father and toddler. A copy of this observation chart is included in Appendix B. These observational codings were limited for three reasons. First, only affiliative behavior was included in the coding, since an in-home observation format does not involve measurement during separation nor measurement in stress situations where toddler attachment is generally assessed (Clarke-Stewart 1977, Lamb and Lamb 1976, Lamb 1976a). Second, toddler behavior, as well as parental behavior, selected for coding during the observations were behaviors other researchers used to assess parent-toddler affiliation (Vandell 1979, Lamb 1977b, Stewart and Burgess 1978, Clarke-Stewart 1977, Field 1978, Belsky 1979). Third, results of a pilot study demonstrated that twenty-two behaviors were the maximum number which could be coded accurately by one researcher during a two minute period of time.

Organization of the observational chart was done with separate sections for mother's behavior toward toddler, toddler's behavior toward mother, father's behavior toward toddler and toddler's behavior

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toward father. Behaviors for each parent and toddler were recorded numerically from one to as many interactions as took place during a two minute period of time.

#### Self-Report Questionnaire

A parental self-report questionnaire was used to obtain information on caregiving activities, play experiences, and support-control interactions parents use with their toddlers. A copy of the parental self-report questionnaire is included as part of Appendix B. This questionnaire was also used to gather data on parent education, parent occupation, parent age, the number of hours parents work outside the home, gender of child, and toddler age.

The research goal in development of the self-report questionnaire was to construct a concise, unobtrusive instrument to obtain information from parents which could be used in conjunction with data collected during the three observation visits. The questionnaire was written so it would be appropriate for use by mothers and fathers of toddlers. Prior research on parent-toddler affiliative behavior, as well as research on the parent-child relationship, suggests that caregiving, play, and support-control would be appropriate areas of assessment using the parental self-report questionnaire. Based on research literature, it also seemed of value to collect information on how often parents believe they do particular activities with their toddlers (Kotelchuck 1976, Weinraub and Frankel 1977, Clarke-Stewart 1977, Clarke-Stewart 1978, Belsky 1979, Zegib 1975, Rollins and Thomas 1979).

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Frequency assessments were made using a five point Lickert scale on each section of the questionnaire. Parents were asked to identify the approximate number of times per day or week they engage in activities with their toddlers. Assessment was done in the following areas of parental caregiving: feeding, hygiene, rest and general care. Play was assessed in the following areas: intellectual, social, arousal, exploratory, independent and cooperative. Research questions related to play were written to ask parents about daily experiences such as block building, reading books, doll play, and games or songs. The questions were organized and written so parents would not be able to identify specific play experiences with the areas of play represented by the questions, since that might change the responses. Parental self-report measures concerning support-control interactions were also evaluated. This was done using categories of support, positive control and negative control. Between two and four questions were used for assessment within each individual area making up the general categories of caregiving, play and support-control.

The self report instrument was written so mothers and fathers could complete the questionnaire within twenty to thirty minutes. The kind of caregiving activities, play experiences, and support-control interactions assessed were based on those activities, experiences and interactions believed to have common meaning for families and assessed for toddlers and parents using a variety of other methods in previous research.

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### Procedures for Data Collection

Observations were scheduled with families during a three month period in the winter and spring of 1983. Data on parent-toddler affiliative behavior were recorded during the second, third and fourth visit with each family. These observations were scheduled for the morning, afternoon and evening at times when both parents would be home. These three observations were arranged following an initial introductory visit. Three observations were based on Baumrind's caution that a minimum of two observation visits are needed for behaviors recorded in a natural setting if parent-toddler behavior is to stabilize and approach typical patterns of interaction (Baumrind and Block 1967). The objective during these in-home observations was to record parent-toddler affiliative behaviors in a more natural situation. Two hour blocks of time were scheduled for each observation session. The researcher did engage parents in conversation before and after those visits to promote rapport, diminish parental anxiety, and facilitate more natural parent-toddler interaction patterns during the observations.

Selection of parent and toddler activities was left open to the family. Parents were encouraged to go about those daily chores they would usually do within their home. Parents were not expected, nor were they asked, to play with their toddlers. Families ate, put children to sleep, cleaned, cooked, worked outdoors, watched television, received drop-in guests, talked, and argued in addition to playing with their child during the observation sessions. Activity choice was left open to the family so that collected data would reflect interaction patterns typical of the home. Coding of affiliative

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interaction for parents and toddlers was stopped only when children fell asleep, when a parent needed to leave because of an emergency situation, or when company arrived. Interrupted observation sessions were either resumed or rescheduled, depending on the nature and length of the interruption.

Consistent coding procedures were used during each observation visit. Coding was done by pencil, with parent and toddler behaviors numbered sequentially from one through the number of behaviors taking place during a two-minute period of time. After two minutes of coding, the researcher paused for a two-minute break. These breaks were used to correct recording errors, fill out time and room location on each new observation sheet, and rest. During each observation visit, thirty-two sheets of coding were completed. However, in tabulating frequencies for each affiliative behavior on the part of parents and toddlers, only thirty sheets of coded behaviors were used for each observation visit. Generally, the first two sheets of coded behaviors were not used. These sheets were eliminated for two reasons. First, parent-toddler interaction showed more strange presence effects during the first several minutes. Second, during most observation visits, the researcher found the first sheet or two helpful in reorienting himself to the coding process. However, in four observation visits, when children fell asleep for the night or for an afternoon nap earlier than anticipated, the last two observation sheets were eliminated and the first two sheets used in their place to determine the frequency of parent-toddler affiliative behavior for that visit.

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Throughout each two hour observation, the researcher avoided interaction with parents and toddlers. In most families, there were times when talking seemed important during the two minute break to facilitate comfort of family members and to promote the observation process. For the most part, comfort with the research process was high among parents and toddlers in the study. Every family permitted the researcher to follow their toddler throughout their home while conducting the observation visit. While most coding was done in the living room, family room, kitchen, and toddler's bedroom, coding was also done outdoors, in the basement, in other bedrooms and in bathrooms depending on the activities in which toddlers and parents were engaged. The location of the researcher in terms of parent-toddler interaction and activity varied depending on several factors. When possible, the researcher sat in the room where activity occurred. However, room size, location of family members in a room, and comfort of those being observed were factors resulting in the researcher standing to code, moving to the room entry way or positioning himself in an adjacent room with an unobstructed view of parent-toddler interaction.

Administration of the parental self-report questionnaire was a simple procedure. These questionnaires were given to each parent at the end of the fourth observation visit. Administration of the questionnaire took place after all observation visits were complete so that choice of activities by parent and toddler during the observation visit would not be influenced by questions on the self-report instrument.

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Mothers and fathers were given separate copies of the questionnaire and asked to complete them individually. The researcher sat with parents while the questionnaires were completed. Parents were encouraged to ask questions if particular items were not clear. Clarification was sought by parents on a few items. Based on parental questions, the researcher determined that, despite rewording after the pilot study, the last two questions regarding independent and cooperative play were not interpreted in a consistent manner by parents. For this reason, the results from these two questions have not been included in the chapter on findings.

#### Procedures for Analyzing Data

Several steps were involved in the process of data analysis. First, there was hand tabulation of the coding sheets used during each observation visit. Totals for the twenty-two affiliative behaviors were computed for every observation visit with each family. These sub-totals were then used to determine a score for each of the twenty-two affiliative behaviors on the part of each family in the study.

The second step in this analysis involved recording data from the questionnaire and observations for computer analysis. Batch entry terminals at Michigan State University, using SPSS language, were used for computer analysis. Data were submitted by individual families with separate numerical scores recorded for affiliative behavior of mother with toddler, toddler with mother, father with toddler, toddler with father, self-report data by mother and self-report by father.

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Initial computer analysis involved tabulation for each category of interaction across the ten families in the study. Totals were derived for the ten fathers in the study, the ten mothers in the study and the ten toddlers in the study. Data were presented regarding the total number of responses in each cell for every question on the questionnaire. Observational data were presented according to the total number of affiliative behavior interactions in each category for the ten families in this study. Thus, frequency comparisons could be made between mothers and fathers with respect to the activities and interactions they do with their toddlers and assessed in this study to determine what differences exist between fathers and mothers in the relationship they have with their toddlers.

Statistical techniques were then used to determine 1) the significance of those differences, and 2) the direction of relationships between variables. For each statistical computation a .05 level of significance was used. A .05 level of significance was chosen as appropriate to the group size and statistical techniques used.

A matched pairs t-test was used to assess the significance and direction of differences between mothers and fathers in their affiliative behaviors toward toddlers. This same test was used to assess differences in toddler affiliative behavior toward each of their parents. The matched pairs t-test was also used to assess the significance and direction of difference between mothers and fathers with respect to caregiving activities, play activities, support behaviors and control behaviors with their toddlers. A matched pairs t-test was chosen since the n for each group being compared was ten.

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The Pearson Product Moment Correlation was used, at a .05 level of significance, to determine if a significant relationship exists between the type or frequency of parent-toddler affiliative behavior and the type or frequency of parental caregiving activities, parental play activities, parental support behaviors or parental control behaviors with toddlers. This correlation technique was used since the data compared were rank order data from the parental self-report questionnaire with data on a frequency continuum from the observational visits.

The Spearman Rho Correlation Coefficient, computed at a .05 level of significance, was used to determine if a significant relationship exists between the frequency of parental support behaviors or the frequency of parental control behaviors and the type and frequency of parental caregiving and play activities with their toddlers. This correlation technique was selected in order to compare rank order data from the parental self-report questionnaire with other rank order data from the parental self-report questionnaire.

The findings using the three statistical techniques described above are reported in Chapter IV. Results for each research question are reported separately. A summary which includes all the statistically significant data is presented in Chapter V.

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## CHAPTER IV

### FINDINGS

This chapter contains a report of findings for each research question in this study. A statement of the research question together with statistical techniques used to answer the question are contained in Figure 4. Each hypothesis developed from a specific research question was tested at a .05 level of statistical significance.

The research findings for those hypotheses which use a t-test for matched pairs are reported as scores showing no difference and as scores approaching a level of statistical significance. The research findings, for the Pearson Product Moment Correlation and the Spearman Rho Correlation are reported as scores showing no relationship, as scores showing a relationship which is statistically significant at a .05 level, and as scores which fall between a .10 and a .05 level of statistical significance. Where appropriate, tables reporting relationships between two variables include information on whether the variables increase in the same direction with a positive relationship, or move in opposite directions showing a negative relationship.

Presentation of the research data is done using tables constructed to present the hypotheses and pertinent data for each research question. The chapter is organized so that each research question represents a separate section.

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<u>Research Question</u>	<u>Statistical Technique</u>
1. Determine whether there is a difference in how frequently each type of affiliative behavior is recorded for mothers toward their toddlers and fathers toward their toddlers during the in-home observation sessions.	T-test for Matched-Pairs
2. Determine whether there is a difference between toddlers and their mothers and toddlers and their fathers in how frequently affiliative behaviors on the part of toddlers toward their parents are recorded during the in-home observation sessions.	T-test for Matched-Pairs
3. Determine whether there is a difference in how frequently mothers and fathers report taking part in particular caregiving activities, i.e. feeding, hygiene, rest, and general care with their toddlers.	T-test for Matched-Pairs
4. Determine whether the frequency of mother and father caregiving activities with their toddlers, i.e. feeding, hygiene, rest and general care has any relationship to the frequency of affiliative behaviors between parent and toddler recorded during the in-home observation sessions.	Pearson Product Moment Correlation
5. Determine whether there is a difference between how frequently mothers and fathers report taking part in particular play activities, i.e. play experiences which are intellectual, social, arousal, and exploratory with their toddlers.	T-test for Matched-Pairs
6. Determine whether the frequency of mother and father play activities, i.e. intellectual, social, arousal, and exploratory play with toddlers is related to how frequently affiliative behaviors are recorded by parents toward toddlers and toddlers toward parents during the in-home observation sessions.	Pearson Product Moment Correlation

Figure 4

Statement of Research Question with Statistical  
Technique Used

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Figure 4 (continued)

<u>Research Question</u>	<u>Statistical Technique</u>
7. Determine whether mothers and fathers differ in the frequency with which each parent reports using positive verbal and positive physical support interactions with their toddlers.	T-test for Matched-Pairs
8. Determine whether there is a relationship between how frequently mothers and fathers report using positive verbal and positive physical support interactions with their toddlers and how frequently specific affiliative behaviors are recorded between parents and toddlers during the in-home observation sessions.	Pearson Product Moment Correlation
9. Determine whether there is a difference between how frequently mothers and fathers report using positive or negative control behaviors when interacting with their toddlers.	T-test for Matched-Pairs
10. Determine whether there is a relationship between the reported use by parents of positive or negative control behaviors with toddlers and how frequently affiliative behaviors between parents and toddlers are recorded during the in-home observation sessions.	Pearson Product Moment Correlation
11. Determine whether there is a relationship between the frequency of support behaviors reported by mothers and fathers with their toddlers and the frequency of caregiving activities parents report participating in with their toddlers.	Spearman Rho Correlation
12. Determine whether there is a relationship between the frequency of control behaviors reported by mothers and fathers with their toddlers and the frequency of caregiving activities parents report participating in with their toddlers.	Spearman Rho Correlation

Figure 4 (continued)

<u>Research Question</u>	<u>Statistical Technique</u>
13. Determine whether there is a relationship between the frequency of support behaviors reported by mothers and fathers with their toddlers and the frequency with which mothers and fathers report taking part in play activities with their toddlers.	Spearman Rho Correlation
14. Determine whether there is a relationship between the frequency of control behaviors by mothers and fathers with their toddlers and the frequency of play activities mothers and fathers report taking part in with their toddlers.	Spearman Rho Correlation

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## Research Question One

## Parental Affiliative Behaviors

1. Determine whether there is a difference in how frequently each type of affiliative behavior is recorded for mothers toward toddlers and fathers toward toddlers during the in-home observation sessions.

Based on this research question, the following hypotheses were developed and tested using a t-test for matched pairs at a .05 level of statistical significance.

- H<sub>1</sub> There is no difference in how frequently mothers and fathers exhibit affiliative behaviors toward their toddlers during the in-home observation sessions.
- H<sub>2</sub> There is no difference in how frequently mothers and fathers exhibit affiliative behaviors in each specific category of smiling and laughing; touching, hugging, and holding; imitative grimaces; high pitched vocalizations; or grooming during the in-home observation sessions.
- H<sub>3</sub> There is no difference in how frequently mothers and fathers exhibit physical affiliative behaviors of touching, hugging, and holding; imitative grimaces; and grooming when interacting with their toddlers during the in-home observation sessions.
- H<sub>4</sub> There is no difference in how frequently mothers and fathers exhibit verbal affiliative behaviors of smiling and laughing; and high-pitched vocalizations when interacting with their toddlers during the in-home observation sessions.

The findings for Research Question One, Hypotheses H<sub>1</sub>, H<sub>2</sub>, H<sub>3</sub>, and H<sub>4</sub> are included in Table 1. Affiliative behavior was computed as mean frequency scores for mothers and fathers. The alpha level is reported for differences between mothers and fathers for each hypothesis.

No statistically significant differences were found between mothers and fathers in the frequency of their affiliative interactions toward toddlers for behavior categories of: smiling and laughing; touching, hugging, and holding; imitative grimaces; or high pitched vocalizations so that, for these behavior categories, the null hypothesis is accepted for Hypothesis H<sub>2</sub>. The null hypotheses are also

Table 1

## Parental Affiliative Behavior

Hypothesis	Mean Score	Mean Score	Significance
	Mothers	Fathers	Level
H <sub>1</sub> All affiliative behaviors of mothers and fathers toward toddlers	567.50	512.50	.613
H <sub>2</sub> Individual affiliative behavior categories			
1) Smiling and laughing	107.10	137.40	.432
2) Touching, hugging and holding	49.50	52.40	.819
3) Imitative grimaces	34.20	28.00	.456
4) High pitched vocalizations	362.60	289.00	.227
5) Grooming behaviors	14.1	5.4	.013*
H <sub>3</sub> Physical affiliative behavior categories	97.80	85.80	.55
H <sub>4</sub> Verbal affiliative behavior categories	469.70	426.40	.49

\*A statistically significant difference  
 Mean Difference 8.70  
 Standard Deviation 8.97  
 Standard Error 2.836

accepted for Hypotheses  $H_1$ ,  $H_3$  and  $H_4$  with findings of no statistical difference between mothers and fathers in total parental affiliative behaviors toward toddlers, in physical affiliative behaviors toward toddlers or in verbal affiliative behaviors toward toddlers. A statistically significant difference was found between mothers and fathers for the individual affiliative behavior category of parental grooming within Hypothesis  $H_2$ . The mean score for mothers was 14.10 with the mean score for fathers 5.40. The difference between these two groups was statistically significant at a .013 alpha level.

#### Research Question Two

##### Toddler Affiliative Behavior

2. Determine whether there is a difference between toddlers and their mothers and toddlers and their fathers in how frequently affiliative behaviors on the part of toddlers toward their parents are recorded during the in-home observation sessions.

Based on this research question, the following hypotheses were developed using a t-test for matched pairs and tested using a .05 level of statistical significance.

- $H_1$  There is no difference between how frequently toddlers exhibit affiliative behaviors toward their mothers and how frequently toddlers exhibit affiliative behaviors toward their fathers.
- $H_2$  There is no difference between how frequently toddlers exhibit specific affiliative behaviors in the categories of smiling, vocalizing, looking, laughing, showing toys and proximity seeking toward their mothers and how frequently toddlers exhibit these same behaviors toward their fathers.
- $H_3$  There is no difference between how frequently toddlers exhibit physical affiliative behaviors of smiling, looking, showing toys and proximity seeking toward their mothers and how frequently toddlers exhibit these same behaviors toward their fathers.

- H<sub>4</sub> There is no difference between how frequently toddlers exhibit verbal affiliative behaviors of vocalizing and laughing toward their mothers and how frequently toddlers exhibit these same behaviors toward their fathers.

The findings for Research Question Two, Hypotheses H<sub>1</sub>, H<sub>2</sub>, H<sub>3</sub>, and H<sub>4</sub> are reported in Table 2. Toddler affiliative behavior was computed as mean frequency scores with mothers and mean frequency scores with fathers. Using the t-test for matched pairs, levels of significance were computed for the differences in the frequency of interaction on the part of toddler with mother and toddler with father for each hypotheses.

No statistically significant differences were found between toddler affiliative behaviors with mothers and toddler affiliative behaviors with fathers in any of the following interaction categories: all affiliative behaviors, physical affiliative behaviors, verbal affiliative behaviors and individual affiliative behavior categories of smiling, looking, laughing, showing toys and proximity seeking. Based on these findings, Hypotheses H<sub>1</sub>, H<sub>2</sub>, H<sub>3</sub> and H<sub>4</sub> from Research Question Two are accepted. The individual behavior category of vocalization did approach statistical significance reaching an alpha level of .078 with mean scores of 245.10 interactions recorded for toddlers toward their mothers and 168.20 interactions recorded on the part of toddlers toward their fathers.

Table 2  
Toddler Affiliative Behavior

	Hypothesis	Mean Score Mothers	Mean Score Fathers	Significance Level
H <sub>1</sub>	Total of all affiliative behaviors	526.10	399.10	.165
H <sub>2</sub>	Individual affiliative behavior categories			
	1) Smiling	95.30	82.50	.456
	2) Vocalizing	245.10	168.20	.078**
	3) Looking	32.70	27.30	.387
	4) Laughing	44.40	43.00	.901
	5) Showing toys	15.90	10.70	.321
	6) Proximity seeking	92.70	67.30	.143
H <sub>3</sub>	All physical affiliative behaviors	236.60	187.80	.223
H <sub>4</sub>	All verbal affiliative behaviors	289.50	211.20	.136

\*\*Approaches statistical significance

Mean Difference 76.90

Standard Deviation 122.157

Standard Error 38.629





## Research Question Three

## Parental Caregiving Activities with Toddlers

3. Determine whether there is a difference in how frequently mothers and fathers report taking part in particular caregiving activities, i.e. feeding, hygiene, rest and general care with their toddlers.

Based on this research question, the following hypotheses were developed and tested using t-tests for matched pairs with a .05 level of statistical significance.

- H<sub>1</sub> There is no difference between mothers and fathers in how frequently each parent takes part in caregiving activities with their toddlers.
- H<sub>2</sub> There is no difference between mothers and fathers in how frequently each parent takes part in caregiving activities involving feeding with their toddlers.
- H<sub>3</sub> There is no difference between mothers and fathers in how frequently each parent takes part in caregiving activities involving hygiene with their toddlers.
- H<sub>4</sub> There is no difference between mothers and fathers in how frequently each parent takes part in caregiving activities involving rest with their toddlers.
- H<sub>5</sub> There is no difference between mothers and fathers in how frequently each parent takes part in caregiving activities involving general care with their toddlers.

The findings for Research Question Three, Hypotheses H<sub>1</sub>, H<sub>2</sub>, H<sub>3</sub>, H<sub>4</sub>, and H<sub>5</sub> are reported in Table 3. Mean frequency scores for mothers with toddlers and fathers with toddlers were computed for each hypotheses. The level of significance for the difference between groups was then calculated for each hypotheses.

As a result of the findings reported in Table 3, null Hypotheses H<sub>2</sub>, H<sub>4</sub>, and H<sub>5</sub> are accepted for Research Question Three. No statistically significant differences were found between mothers and fathers in how often they took part in caregiving behaviors with their toddlers involving feeding, rest or general care.

Table 3  
Frequency of Parental Caregiving

Hypothesis	Mean-Score Mother and Toddler	Mean-Score Father and Toddler	Significance Level
H <sub>1</sub> Total maternal caregiving behaviors with toddlers compared with total paternal caregiving behaviors with toddlers	45.10	39.40	.083**
H <sub>2</sub> Total maternal feeding behaviors with toddlers compared with total paternal feeding behaviors with toddlers	12.30	11.20	.240
H <sub>3</sub> Total maternal cleaning behaviors with toddlers compared with total paternal cleaning behaviors with toddlers	14.80	12.30	.030*
H <sub>4</sub> Total maternal resting behaviors with toddlers compared with total paternal resting behaviors with toddlers	9.00	8.10	.475
H <sub>5</sub> Total maternal general care behaviors with toddlers compared with total paternal general care behaviors with toddlers	9.00	7.80	.211

\* Statistically Significant  
Mean Difference 2.500  
Standard Deviation 3.064  
Standard Error .969

\*\* Approaches Statistical Significance  
Mean Difference 5.700  
Standard Deviation 9.238  
Standard Error 2.921



The findings indicate a significant difference between mothers and fathers in caregiving behaviors with toddlers involving cleaning. The mean score for these behaviors on the part of mothers toward toddlers was 14.80 while the mean score for fathers in this area of caregiving was 12.30. The difference between these two groups of parents was significant at a .030 level. Based on these findings, null hypothesis  $H_3$  for Research Question Three is rejected.

While no statistically significant difference was found between mothers and fathers for Research Question Three, Hypothesis  $H_1$ , concerning total maternal and paternal caregiving behaviors with toddlers, the difference did approach statistical significance falling between a .05 and a .10 alpha level. Mothers took part in more caregiving behaviors than fathers with a frequency of 45.10 interactions reported for mothers with their toddlers and a frequency of 39.40 interactions reported for fathers with their toddlers. The difference between groups reached a .083 level of statistical significance so null hypothesis  $H_1$  from Research Question Three is accepted.

#### Research Question Four

##### Frequency of Caregiving Behaviors Correlated with Frequency of Affiliative Behaviors Between Parents and Toddlers

4. Determine whether the frequency of mother and father caregiving activities with their toddlers, i.e. feeding, hygiene, rest and general care has any relationship to the frequency of affiliative behaviors between parent and toddler recorded during the in-home observation sessions.

Based on this research question, the following hypotheses were developed and tested using a Pearson Product Moment Correlation with a .05 level of statistical significance.

- H<sub>1</sub> There is no relationship between how frequently mothers take part in caregiving activities with their toddlers and how frequently toddlers engage in affiliative interactions toward their mothers.
- H<sub>2</sub> There is no relationship between how frequently fathers take part in caregiving activities with their toddlers and how frequently toddlers engage in affiliative interactions toward their fathers.
- H<sub>3</sub> There is no relationship between how frequently mothers take part in caregiving activities with their toddlers and how frequently mothers engage in affiliative interactions toward their toddlers.
- H<sub>4</sub> There is no relationship between how frequently fathers take part in caregiving activities with their toddlers and how frequently fathers engage in affiliative interactions toward their toddlers.

The findings for Research Question Four, Hypotheses H<sub>1</sub>, H<sub>2</sub>, H<sub>3</sub>, and H<sub>4</sub> are reported in Table 4. The relationship between frequency of caregiving activity and frequency of affiliative behavior on the part of toddler with each parent and each parent with toddler was computed to determine if the relationships between variables was positive or negative. A level of significance for each relationship was also computed.

As reported in Table 4, no significant relationship was found between how frequently parents take part in caregiving behaviors with their toddlers and how frequently parents and toddlers exhibit affiliative behaviors with each other during the in-home observation sessions. Thus, for Research Question Four, Hypotheses H<sub>1</sub>, H<sub>2</sub>, H<sub>3</sub>, and H<sub>4</sub> were each accepted. The research did show negative correlations between the frequency of maternal caregiving behaviors and the frequency with which affiliative behaviors were initiated by mothers and by toddlers. In contrast, positive correlations were found between the frequency of paternal caregiving behaviors and the frequency with which affiliative behaviors were initiated by fathers and by toddlers.

Table 4

Frequency of Caregiving Behaviors Correlated with Frequency  
of Affiliative Behaviors between Parents and Toddlers

Hypothesis	Direction of Correlation	Significance level
H <sub>1</sub> Frequency of maternal caregiving with frequency of toddler affiliative behavior toward mother	-.2636	.231
H <sub>2</sub> Frequency of paternal caregiving with frequency of toddler affiliative behavior toward father	+.2169	.274
H <sub>3</sub> Frequency of maternal caregiving with frequency of maternal affiliative behavior toward toddler	-.3141	.188
H <sub>4</sub> Frequency of paternal caregiving with frequency of paternal affiliative behavior toward toddler	+.0651	.429

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## Research Question Five

Differences in Parental Play Activities  
with Toddlers According to Sex of Parent

5. Determine whether there is a difference between how frequently mothers and fathers report taking part in particular play activities, i.e. play experiences which are intellectual, social, arousal, and exploratory with their toddlers.

Based on this research question the following hypotheses were developed and tested using a t-test for matched pairs at a .05 level of statistical significance.

- H<sub>1</sub> There is no difference between mothers and fathers in the frequency with which parents report taking part in play activities with their toddlers.
- H<sub>2</sub> There is no difference between mothers and fathers in the frequency with which parents report taking part in intellectual play activities with their toddlers.
- H<sub>3</sub> There is no difference between mothers and fathers in the frequency with which parents report taking part in social play activities with their toddlers.
- H<sub>4</sub> There is no difference between mothers and fathers in the frequency with which parents report taking part in arousal play activities with their toddlers.
- 5 There is no difference between mothers and fathers in the frequency with which parents report taking part in exploratory play activities with their toddlers.

The findings for Research Question Five, Hypotheses H<sub>1</sub>, H<sub>2</sub>, H<sub>3</sub>, H<sub>4</sub>, and H<sub>5</sub> are reported in Table 5. Comparisons are made between the frequency of parental play activities with toddlers by looking at mean frequency scores for mothers with toddlers and mean frequency scores for fathers with toddlers. A level of significance was then computed for the difference between groups.



Table 5

Differences in Parental Play Activities with  
Toddlers According to Gender of Parent

Hypothesis	Mean Score Mother-Toddler	Mean Score Father-Toddler	Significance Level
H <sub>1</sub> Total play activities of mother with toddler compared to father with toddler	99.00	28.90	.039*
H <sub>2</sub> Intellectual play of mother with toddler compared to father with toddler	7.10	7.30	.780
H <sub>3</sub> Social play of mother with toddler compared to father with toddler	78.70	7.90	.039**
H <sub>4</sub> Arousal play of mother with toddler compared to father with toddler	5.90	6.50	.483
H <sub>5</sub> Exploratory play of mother with toddler compared to father with toddler	7.30	7.20	.927

\*Statistically Significant Difference

Mean Difference 70.10  
Standard Deviation 91.704  
Standard Error 28.999

\*\*Statistically Significant Difference

Mean Difference 70.80  
Standard Deviation 92.630  
Standard Error 29.292

No differences were found in parental self-reports by mothers and fathers regarding the frequency of their intellectual, arousal and exploratory play with their toddlers. Based on these findings, null hypotheses  $H_2$ ,  $H_4$ , and  $H_5$  for Research Question Five are accepted. Statistically significant differences were found between mothers and fathers in the frequency of their social play with toddlers and in the frequency of their total play activities with toddlers. Mothers took part in more social play activities with their toddlers than fathers, with the mean score for mothers play interactions with their toddlers 78.70 and the mean score for fathers play interactions with their toddlers 7.90. This frequency difference between mothers and fathers was significant at a .039 level. Based on these findings, null Hypothesis  $H_3$  with Research Question Five is rejected. The frequency difference for total play interactions on the part of mothers and fathers with their toddlers was also significant at a .039 level. The mean score for mothers' total play interactions with toddlers was 99.00 while the mean score for fathers' total play interactions with toddlers was 28.90. Based on these findings, null Hypothesis  $H_1$  with Research Question Five is also rejected.

#### Research Question Six

##### Relationship between Frequency of Parental Play Activities with Toddlers and Frequency of Affiliative Interactions between Parent and Toddler

6. Determine whether the frequency of mother and father play activities, i.e. intellectual, social, arousal, and exploratory play with toddlers is related to how frequently affiliative behaviors are recorded by parents toward toddlers and toddlers toward parents during the in-home observation sessions.

Based on this research question, the following hypotheses were developed and tested at a .05 level of statistical significance using a Pearson Product Moment Correlation to determine whether the relationship between tested variables was significant.

- H<sub>1</sub> There is no relationship between how frequently mothers and fathers report taking part in play activities with their toddlers and how frequently affiliative behaviors are recorded on the part of parents toward their toddlers during the in-home observation sessions.
- H<sub>2</sub> There is no relationship between how frequently mothers and fathers report taking part in play activities with their toddlers and how frequently affiliative behaviors are recorded on the part of toddlers toward their parents during the in-home observation sessions.
- H<sub>3</sub> There is no relationship between how frequently mothers and fathers report taking part in intellectual play activities with their toddlers and how frequently affiliative behaviors are recorded on the part of parents toward their toddlers during the in-home observation sessions.
- H<sub>4</sub> There is no relationship between how frequently mothers and fathers report taking part in intellectual play activities with their toddlers and how frequently affiliative behaviors are recorded on the part of toddlers toward their parents during the in-home observation sessions.
- H<sub>5</sub> There is no relationship between how frequently mothers and fathers report taking part in social play activities with their toddlers and how frequently affiliative behaviors are recorded on the part of parents toward their toddlers during the in-home observation sessions.
- H<sub>6</sub> There is no relationship between how frequently mothers and fathers report taking part in social play activities with their toddlers and how frequently affiliative behaviors are recorded on the part of toddlers toward their parents during the in-home observation sessions.
- H<sub>7</sub> There is no relationship between how frequently mothers and fathers report taking part in arousal play activities with their toddlers and how frequently affiliative behaviors are recorded on the part of parents toward their toddlers during the in-home observation sessions.

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- H<sub>8</sub> There is no relationship between how frequently mothers and fathers report taking part in arousal play activities with their toddlers and how frequently affiliative behaviors are recorded on the part of toddlers toward their parents during the in-home observation sessions.
- H<sub>9</sub> There is no relationship between how frequently mothers and fathers report taking part in exploratory play activities with their toddlers and how frequently affiliative behaviors are recorded on the part of parents toward their toddlers during the in-home observation sessions.
- H<sub>10</sub> There is no relationship between how frequently mothers and fathers report taking part in exploratory play activities with their toddlers and how frequently affiliative behaviors are recorded on the part of the toddlers toward their parents during the in-home observation sessions.

The findings for Research Question Six, Hypotheses H<sub>1</sub>, H<sub>3</sub>, H<sub>5</sub>, H<sub>7</sub>, and H<sub>9</sub> are reported in Table 6 with correlations made between parental play activities with toddlers and affiliative behaviors on the part of each parent with their toddlers. The positive or negative direction of the relationship together with the level of significance is reported for each hypotheses. The findings for Research Question Seven, Hypotheses H<sub>2</sub>, H<sub>4</sub>, H<sub>6</sub>, H<sub>8</sub>, and H<sub>10</sub> are reported in Table 7 with correlations made between parental play activities with toddlers and affiliative behaviors on the part of toddlers with each of their parents. As in Table 6, direction of relationship together with significance level is reported for each hypotheses.

For each set of results reported in Table 6, the positive and negative signs indicate whether frequency of parental play activities with toddlers is associated with frequency of affiliative behaviors on the part of parents toward their toddlers. The frequency of fathers' arousal play activities with toddlers was positively correlated with frequency of fathers' affiliative behavior toward their toddlers. The correlation was .5511 which was significant at a .049 level. Based on



Table 6

Relationship Between Frequency of Parental Play  
Activities with Toddlers and Frequency of  
Affiliative Interaction between Parents and Toddlers

Hypothesis Number	Type of Play	Correlated with Affiliative Behavior	
		Mother-Toddler	Father-Toddler
H <sub>1</sub>	Total play activities of parent with toddler	-.0410 P=.455	+.4752 P=.083 *
H <sub>3</sub>	Intellectual play activities of parent with toddler	+.0747 P=.419	-.2632 P=.231
H <sub>5</sub>	Social play activities of parent with toddler	-.0396 P=.457	+.2882 P=.210
H <sub>7</sub>	Arousal Play activities of parent with toddler	+.0066 P=.493	+.5511 P=.049 **
H <sub>9</sub>	Exploratory play activities of parent with toddler	-.0827 P=.410	+.5346 P=.056 ***

\* Approaches a Statistically Significant Relationship  
Correlation +.4752  
Significance Level =.083

\*\* Statistically Significant Relationship  
Correlation +.5511  
Significance Level =.049

\*\*\* Statistically Significant Relationship  
Correlation +.5346  
Significance Level =.056

Table 7

Relationship between Frequency of Parental Play  
Activities with Toddlers and Frequency of  
Affiliative Interaction between Toddlers and Parents

Hypothesis Number	Type of Parental Play	Correlated with Affiliative Behavior	
		Toddler-Mother	Toddler-Father
H <sub>2</sub>	Total play activities of mother/father with toddler	-.5032 * P=.069	+.3701 P=.146
H <sub>4</sub>	Intellectual play activities of mother/father with toddler	+.1202 P=.370	+.0035 P=.496
H <sub>6</sub>	Social play activities of mother/father with toddler	-.5046 ** P=.068	+.3172 P=.186
H <sub>8</sub>	Arousal play activities of mother/father with toddler	+.2450 P=.248	+.3048 P=.196
H <sub>10</sub>	Exploratory play activities of mother/father with toddler	-.0783 P=.415	+.2475 P=.245

\* Approaches a Significant Relationship  
Correlation -.5032  
Significance Level .069

\*\* Approaches a Significant Relationship  
Correlation -.5046  
Significance level .068



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these results, null hypothesis  $H_7$  with Research Question Seven is rejected. Null hypotheses  $H_1$ ,  $H_3$ ,  $H_5$ , and  $H_9$  are accepted. While null hypotheses  $H_1$  and  $H_9$  are accepted, the relationships represented by these hypotheses did fall between a .10 and a .05 alpha level. Total play activities on the part of fathers with toddlers had a positive .4952 correlation with fathers' affiliative behavior toward their toddlers. This correlation approached significance at a .083 level. Exploratory play behaviors of fathers with toddlers were positively correlated, +.5346, with fathers' affiliative behaviors toward their toddlers. The relationship between these two variables approached significance at a .056 level.

While null hypotheses  $H_2$ ,  $H_4$ ,  $H_6$ ,  $H_8$ , and  $H_{10}$  were all accepted for Research Question Seven, two relationships reported in Table 7 approached significance falling between a .10 and a .05 alpha level. In both cases, the correlations were negative, indicating that as play interactions increase, affiliative behaviors decrease. Total maternal play activities with toddlers were negatively correlated, -.5032, with toddler affiliative behaviors toward mother. This relationship approached significance at a .069 level. Maternal social play activities with toddlers were also negatively correlated, -.5046, with toddler affiliative behavior toward mother. This correlation also approached significance at a .068 level. However, relationships between toddler affiliative interaction with parents and intellectual play, arousal play and exploratory play of mother and father with their toddlers did not approach significance when correlated with affiliative behavior on the part of toddlers with their mothers and fathers.

## Research Question Seven

Parental Self-Reports on Frequency of Verbal  
and Physical Support Interactions with their Toddlers

7. Determine whether mothers and fathers differ in the frequency with which each parent reports using positive verbal and positive physical support interactions with their toddlers.

Based on this research question, the following hypotheses were developed and tested at a .05 level of statistical significance using a t-test for matched pairs.

- $H_1$  There is no difference in how frequently mothers and fathers report taking part in support interactions with their toddlers.
- $H_2$  There is no difference in how frequently mothers and fathers report taking part in verbal support interactions with their toddlers.
- $H_3$  There is no difference in how frequently mothers and fathers report taking part in physical support interactions with their toddlers.

The findings for Research Question Seven, Hypothesis  $H_1$ ,  $H_2$ , and  $H_3$  are reported in Table 8. Frequency of parental self-reported support interactions were compared for each hypotheses with mean scores reported for mother toward toddler and father toward toddler. For each hypothesis a significance level was also computed for the frequency comparisons between mothers and fathers.

Based on the research findings reported in Table 8, null hypotheses  $H_1$ ,  $H_2$ , and  $H_3$  for Research Question Seven are accepted. While no differences were found between parental self-reports by mothers and fathers on the frequency of verbal support behaviors with toddlers, differences approaching statistical significance were found between parents on the frequency of their physical support behaviors with toddlers and on the frequency of their total support behaviors with toddlers. The difference between total support behaviors by

Table 8

Parental Self-Reports on Frequency of Verbal and  
Physical Support Interactions with Toddlers

	Hypothesis	Mother- Toddler	Father- Toddler	Significance Level
H <sub>1</sub>	Frequency of parental verbal and physical support toward toddlers	17.10	15.40	.082*
H <sub>2</sub>	Frequency of parental physical support toward toddlers	8.80	7.90	.054**
H <sub>3</sub>	Frequency of parental verbal support toward toddlers	8.30	7.50	.210

\* Approaches Significance  
Mean Difference 1.70  
Standard Deviation 2.751  
Standard Error .870

\*\* Approaches Significance  
Mean Difference .900  
Standard Deviation 1.287  
Standard Error .407



mothers toward toddlers and total support behaviors by fathers toward toddlers, hypothesis  $H_1$ , approaches a level of statistically significant difference with mothers showing more support behaviors than fathers. The mean difference between groups was 1.70 with that difference reaching a .082 alpha level. The difference between mothers' and fathers' physical support behaviors, hypothesis  $H_2$ , approached a .05 alpha level. Mothers showed more physical support behaviors toward toddlers than fathers with the mean difference between groups .900 and the difference approaching statistical significance at a .054 alpha level.

#### Research Question Eight

##### Relationship Between Parental Positive Verbal and Positive Physical Support Interactions and the Frequency of Affiliative Interactions Between Parents and Toddlers

8. Determine whether there is a relationship between how frequently mothers and fathers report using positive verbal or positive physical support interactions with their toddlers and how frequently specific affiliative behaviors are recorded between parents and toddlers during the in-home observation sessions.

Based on this research question the following hypotheses were developed and the relationship between variables tested using a Pearson Product Moment Correlation at a .05 level of statistical significance.

- $H_1$  There is no relationship between how frequently mothers report using positive support interactions with their toddlers and how frequently affiliative behaviors on the part of mothers toward their toddlers are recorded during the in-home observation sessions.
- $H_2$  There is no relationship between how frequently mothers report using positive support interactions with their toddlers and how frequently affiliative behaviors on the part of toddlers toward their mothers are recorded during the in-home observation sessions.

- H<sub>3</sub> There is no relationship between how frequently fathers report using positive support interactions with their toddlers and how frequently affiliative behaviors on the part of fathers toward their toddlers are recorded during the in-home observation sessions.
- H<sub>4</sub> There is no relationship between how frequently fathers report using positive support interactions with their toddlers and how frequently affiliative behaviors on the part of toddlers toward their fathers are recorded during the in-home observation sessions.
- H<sub>5</sub> There is no relationship between how frequently mothers report using verbal support interactions with their toddlers and how frequently affiliative behaviors on the part of mothers toward their toddlers are recorded during the in-home observation sessions.
- H<sub>6</sub> There is no relationship between how frequently mothers report using verbal support interactions with their toddlers and how frequently affiliative behaviors on the part of toddlers toward their mothers are recorded during the in-home observation sessions.
- H<sub>7</sub> There is no relationship between how frequently fathers report using verbal support interactions with their toddlers and how frequently affiliative behaviors on the part of fathers toward their toddlers are recorded during the in-home observation sessions.
- H<sub>8</sub> There is no relationship between how frequently fathers report using verbal support interactions with their toddlers and how frequently affiliative behaviors on the part of toddlers toward their fathers are recorded during the in-home observation sessions.
- H<sub>9</sub> There is no relationship between how frequently mothers report using physical support interactions with their toddlers and how frequently affiliative behaviors on the part of mothers toward their toddlers are recorded during the in-home observation sessions.
- H<sub>10</sub> There is no relationship between how frequently mothers report using physical support interactions with their toddlers and how frequently affiliative behaviors on the part of toddlers toward their mothers are recorded during the in-home observation sessions.
- H<sub>11</sub> There is no relationship between how frequently fathers report using physical support interactions with their toddlers and how frequently affiliative behaviors on the part of fathers toward their toddlers are recorded during the in-home observation sessions.

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- H<sub>12</sub> There is no relationship between how frequently fathers report using physical support interactions with their toddlers and how frequently affiliative behaviors on the part of toddlers toward their fathers are recorded during the in-home observation sessions.

The findings for Research Question Eight, Hypotheses H<sub>1</sub>, H<sub>3</sub>, H<sub>5</sub>, H<sub>7</sub>, H<sub>9</sub>, and H<sub>11</sub> are reported in Table 9 with correlations made between parental support interactions toward toddlers and affiliative behaviors on the part of parents with their toddlers. The findings for Research Question Eight, Hypotheses H<sub>2</sub>, H<sub>4</sub>, H<sub>6</sub>, H<sub>8</sub>, and H<sub>10</sub> are reported in Table 10. In this report of data, correlations were made between parental support interactions toward toddlers and affiliative behavior on the part of toddlers with their parents. For both Table 9 and Table 10, the direction of the relationship between variables is indicated as positive or negative together with the level of statistical significance for the relationship.

Null Hypothesis H<sub>9</sub> for Research Question Eight was rejected with the relationship between variables statistically significant at a .042 level. The frequency of mothers' self-reported physical support behaviors toward toddlers reached a positive .5706 correlation with the frequency of mothers' affiliative behaviors toward toddlers. Two relationships reported on Table 9 approached statistical significance, falling between a .10 and a .05 level. Frequency of fathers' support interactions had a +.4503 correlation with frequency of fathers' affiliative behaviors toward toddlers. This correlation reached a .096 alpha level. Frequency of fathers' physical support interactions had a +.4835 correlation with frequency of fathers' affiliative behaviors toward toddlers. This correlation approached statistical significance at a .078 alpha level.



Table 9

Relationship Between Parental Support Interactions and the Frequency of Affiliative Behaviors on the Part of Parents with their Toddlers

Hypothesis Type of Parental Support	Correlated with: Affiliative Behavior of Mother toward Toddler	Correlated with: Affiliative Behavior of Father toward Toddler
H <sub>1</sub> Total positive support interactions of mother with toddler	+.3860 P=.135	
H <sub>3</sub> Total positive support interactions of father with toddler		+.4503 P=.096 *
H <sub>5</sub> Verbal support interactions of mother with toddler	+.3860 P=.135	
H <sub>7</sub> Verbal support interactions of father with toddler		+.2957 P=.203
H <sub>9</sub> Physical support interactions of mother with toddler	+.5706 P=.042 **	
H <sub>11</sub> Physical support interactions of father with toddler		+.4835 P=.078 ***

\* Approaches a Significant Relationship  
Correlation +.4503  
Significance level .083

\*\* Significant Relationship  
Correlation +.5706  
Significance level .042

\*\*\* Approaches a Significant Relationship  
Correlation +.4835  
Significance level .078

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Table 10

Relationship Between Parental Support Interactions and Frequency of  
Affiliative Interactions on the Part of Toddlers with Parents

Hypothesis		Correlated with:	Correlated with:
Type of		Affiliative Behavior of	Affiliative Behavior of
Parental Support		Toddler toward Mother	Toddler with Father
H <sub>2</sub>	Total support interactions of mothers with toddlers	+.0291 P=.468	
H <sub>4</sub>	Total support interactions of fathers with toddlers		+.4124 P=.118
H <sub>6</sub>	Verbal support interactions of mothers with toddlers	-.0274 P=.470	
H <sub>8</sub>	Verbal support interactions of fathers with toddlers		+.3863 P=.135
H <sub>10</sub>	Physical support interactions of mothers with toddlers	+.1222 P=.386	
H <sub>12</sub>	Physical support interactions of fathers with toddlers		+.2778 P=.219

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No statistically significant relationships were found between the self-reported frequency of parental support behaviors toward toddlers and the frequency of toddler affiliative behaviors with mothers and/or fathers. In addition, none of the relationships reported in Table 10, approached a level of statistical significance. Based on the findings for research Question Eight, null Hypotheses  $H_2$ ,  $H_4$ ,  $H_6$ ,  $H_8$ ,  $H_{10}$ , and  $H_{12}$  are accepted.

#### Research Question Nine

##### Parental Self-Reports Concerning Frequency of Positive and Negative Control Behaviors by Parents Toward Toddlers

9. Determine whether there is a difference between how frequently mothers and fathers report using positive or negative control behaviors when interacting with their toddlers.

Based on this research question, the following hypotheses were developed and tested using a t-test for matched pairs at a .05 level of statistical significance.

- $H_1$  There is no difference between mothers and fathers in how frequently each parent reports using positive control behaviors with their toddlers.
- $H_2$  There is no difference between mothers and fathers in how frequently each parent reports using negative control behaviors with their toddlers.

The findings for Research Question Nine, Hypotheses  $H_1$  and  $H_2$  are reported in Table 11. Frequency of parental self-reported positive and negative control behaviors were compared for each hypothesis, with mean scores reported for mother toward toddler and father toward toddler. For both hypotheses a significance level was computed for the frequency comparison between parents.

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Table 11

Parental Self-Reports Concerning Frequency of Positive  
and Negative Control Behaviors with Toddlers

Hypothesis	Mean Score for Mothers with Toddlers	Mean Score for Fathers with Toddlers	Significance Level
H <sub>1</sub> Frequency of positive control behaviors	13.30	12.10	.147
H <sub>2</sub> Frequency of negative control behaviors	6.80	6.00	.196

No statistically significant differences were found between mothers and fathers in how frequently they reported using positive or negative control interactions with their toddlers. Based on the findings, null Hypotheses H<sub>1</sub> and H<sub>2</sub> are accepted for Research Question Nine.

#### Research Question Ten

Parental Self-Reports Concerning Frequency of Positive  
and Negative Control Behaviors Correlated with  
Frequency of Affiliative Behaviors Between Parents and Toddlers

10. Determine whether there is a relationship between the reported use by parents of positive or negative control behaviors with toddlers and how frequently affiliative behaviors between parents and toddlers are recored during the in-home observation sessions.

Based on this research question, the following hypotheses were developed and tested using a Pearson Product Moment Correlation at a .05 level of statistical significance.

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- H<sub>1</sub> There is no relationship between how frequently mothers report using positive control behaviors with their toddlers and how frequently mothers exhibit affiliative behaviors toward their toddlers during the in-home observation sessions.
- H<sub>2</sub> There is no relationship between how frequently mothers report using positive control behaviors with their toddlers and how frequently toddlers exhibit affiliative behaviors toward their mothers during the in-home observation sessions.
- H<sub>3</sub> There is no relationship between how frequently fathers report using positive control behaviors with their toddlers and how frequently fathers exhibit affiliative behaviors toward their toddlers during the in-home observation sessions.
- H<sub>4</sub> There is no relationship between how frequently fathers report using positive control behaviors with their toddlers and how frequently toddlers exhibit affiliative behaviors toward their fathers during the in-home observation sessions.
- H<sub>5</sub> There is no relationship between how frequently mothers report using negative control behaviors with their toddlers and how frequently mothers exhibit affiliative behaviors toward their toddlers during the in-home observation sessions.
- H<sub>6</sub> There is no relationship between how frequently mothers report using negative control behaviors with their toddlers and how frequently toddlers exhibit affiliative behaviors toward their mothers during the in-home observation sessions.
- H<sub>7</sub> There is no relationship between how frequently fathers report using negative control behaviors with their toddlers and how frequently fathers exhibit affiliative behaviors toward their toddlers during the in-home observation sessions.
- H<sub>8</sub> There is no relationship between how frequently fathers report using negative control behaviors with their toddlers and how frequently toddlers exhibit affiliative behaviors toward their fathers during the in-home observation sessions.

The findings for Research Question Ten, Hypotheses H<sub>1</sub>, H<sub>3</sub>, H<sub>5</sub>, and H<sub>7</sub> are reported in Table 12 with a comparison made between frequency of parental self-reported positive and negative control behaviors with toddlers and frequency of parental affiliative behaviors toward toddlers. The positive or negative direction of each relationship was determined together with level of statistical significance for each relationship. The findings for Research Question Ten, Hypotheses H<sub>2</sub>,

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$H_4$ ,  $H_6$ , and  $H_8$  are reported in Table 13 with a comparison made between the frequency of parental self-reported positive and negative control behaviors with toddlers and the frequency of toddler affiliative behaviors toward parents. As in Table 12, the positive or negative direction of each relationship was determined together with the statistical significance level for each relationship.

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Table 12

Relationship Between Parental Self-Reports Concerning  
Frequency of Positive and Negative Control Behaviors with  
Toddlers and Parental Affiliative Behaviors Toward Toddlers

Hypothesis Type of Parental Control Behavior	Correlated with: Affiliative Behavior of Mother toward Toddler	Correlated with: Affiliative Behavior of Father toward Toddler
H <sub>1</sub> Positive control interactions of mother with toddler	-.5378 P=.054 *	
H <sub>3</sub> Positive control interactions of father with toddler		+.7909 P=.003 **
H <sub>5</sub> Negative control interactions of mother with toddler	-.5181 P=.063 ***	
H <sub>7</sub> Negative control interactions of father with toddler		+.2607 P=.283

\* Approaches a Significant Relationship  
Correlation -.5378  
Significance Level .054

\*\* Significant Relationship  
Correlation +.7907  
Significance Level .003

\*\*\* Approaches a Significant Relationship  
Correlation -.5181  
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Table 13

Relationship Between Parental Self-Reports Concerning  
Frequency of Positive and Negative Control Behaviors with  
Toddlers and Toddler Affiliative Behavior with Parents

Hypothesis		Correlated with:	Correlated with:
Type of Parental		Affiliative Behavior of	Affiliative Behavior of
Control Behaviors		Toddler toward Mother	Toddler toward Father
H <sub>2</sub>	Positive control interactions of mother with toddler	-.4208 P=.113	
H <sub>4</sub>	Positive control interactions of father with toddler		+.7510 P=.006 *
H <sub>6</sub>	Negative control interactions of mother with toddler	-.3020 P=.198	
H <sub>8</sub>	Negative control interactions of father with toddler		+.2067 P=.263

\* Statistically Significant Relationship  
Correlation +.7510  
Significance Level .006

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For the two maternal relationships reported in Table 12, control interactions by mothers with toddlers approached a significant relationship with maternal affiliative interactions toward toddlers. Both behavioral categories for mothers fell between a .10 and a .05 level of statistical significance with increased maternal control behaviors associated with fewer affiliative behaviors on the part of mothers toward toddlers. Mothers' positive control behaviors toward their toddlers showed a  $-.5378$  correlation with mothers' affiliative behavior toward their toddlers. The relationship approached statistical significance at a .054 alpha level. Mothers' negative control behaviors toward their toddlers showed a  $-.5181$  correlation with mothers' affiliative behavior toward their toddlers. This relationship approached significance at a .063 alpha level. As a result of the above findings, Hypotheses  $H_1$  and  $H_5$  for Research Question Ten are accepted.

The frequency of fathers' positive control interactions with their toddlers was highly correlated with the frequency of fathers' affiliative behavior toward toddlers. The correlation was  $+.7909$  with increased affiliative behavior on the part of father toward toddler. This relationship was statistically significant at a .003 level. No relationship was found between fathers' negative control interactions toward toddlers and the frequency of affiliative behavior on the part of fathers toward their toddlers. As a result of these findings, Hypothesis  $H_7$  for Research Question Ten is accepted while Hypothesis  $H_3$  for Research Question Ten is rejected.

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No statistically significant relationships were found between parental self-reports of negative control interactions with toddlers and the frequency of toddler affiliative behavior toward either mother or father. In addition, no statistically significant relationship was found between mothers' positive control interactions with toddlers and the frequency of toddler affiliative behaviors toward mothers. Thus, null hypotheses  $H_2$ ,  $H_6$  and  $H_8$  for Research Question Ten are accepted.

However, a high positive correlation was found between positive control interactions by fathers with toddlers and affiliative behaviors on the part of toddlers with fathers. The correlation was .7510 at a .006 level of statistical significance. Based on these results, null hypothesis  $H_4$  for Research Question Ten is rejected.

#### Research Question Eleven

##### Relationship Between Frequency of Parental Support Behaviors with Toddlers and Frequency of Parental Caregiving Activities with Toddlers

11. Determine whether there is a relationship between the frequency of support behaviors reported by mothers and fathers with their toddlers and the frequency of caregiving activities parents report participating in with their toddlers.

Based on this research question, the following hypotheses were developed and tested using Spearman Rho Correlations at a .05 level of statistical significance.

- $H_1$  There is no relationship between how frequently mothers report using support behaviors with their toddlers and how frequently mothers report participating in caregiving activities with their toddlers.
- $H_2$  There is no relationship between how frequently mothers report using support behaviors with their toddlers and how frequently mothers report taking part in specific caregiving activities of feeding, hygiene, rest and personal care with their toddlers.

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- H<sub>3</sub> There is no relationship between how frequently fathers report using support behaviors with their toddlers and how frequently fathers report participating in caregiving activities with their toddlers.
- H<sub>4</sub> There is no relationship between how frequently fathers report using support behaviors with their toddlers and how frequently fathers report taking part in specific caregiving activities of feeding, hygiene, rest and personal care with their toddlers.

The findings for Research Question Eleven, Hypotheses H<sub>1</sub>, H<sub>2</sub>, H<sub>3</sub>, and H<sub>4</sub> are reported in Table 14 with correlations made between the frequency of parental self-reported caregiving activities with their toddlers and the frequency of parental self-reported support interactions with their toddlers. The positive or negative direction of the correlation is reported together with the statistical significance level of the relationship for each hypothesis.

A statistically significant relationship of positive .6564 was found between frequency of fathers' support behaviors with toddlers and frequency of caregiving activities by fathers, which included general care of their toddlers. The relationship between these variables was a positive .6564 at a .020 level of statistical significance. Thus, for the individual category of general care, null hypothesis H<sub>4</sub> from Research Question Eleven is rejected. However, for each of the other individual caregiving behaviors of feeding, hygiene, and rest, null hypothesis H<sub>4</sub> is accepted. Null Hypotheses H<sub>1</sub>, H<sub>2</sub>, and H<sub>3</sub> for Research Question Eleven are also accepted. While only one individual relationship was statistically significant, the data reported in Table 14 show a negative relationship between frequency of self-reported support behaviors by mothers and toddlers so that increased maternal support was associated with a decrease in maternal caregiving activities.

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Table 14

Relationship Between Frequency of Parental Support  
Behaviors with Toddlers and Frequency of  
Parental Caregiving Activities with Toddlers

Hypothesis Number Type of Caregiving Activity with Toddlers	Correlated with: Total of Mother's Support Behaviors with Toddlers	Correlated with: Total of Father's Support Behaviors with Toddlers
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H <sub>1</sub> and H <sub>3</sub>		
Total of all caregiving activities on the part of parents with toddlers	-.0787 Sig. .415	+.2178 Sig. .273
H <sub>2</sub> and H <sub>4</sub>		
All caregiving activities involving feeding by parents with toddlers	-.0194 Sig. .479	+.1728 Sig. .317
H <sub>2</sub> and H <sub>4</sub>		
All caregiving activities involving hygiene by parents with toddlers	-.1614 Sig. .328	+.3138 Sig. .189
H <sub>2</sub> and H <sub>4</sub>		
All caregiving activities involving rest by parents with toddlers	-.0912 Sig. .402	-.3519 Sig. .160
H <sub>2</sub> and H <sub>4</sub>		
All caregiving activities involving general care by parents with toddlers	+.1618 Sig. .328	+.6564 * Sig. .020
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## Research Question Twelve

## Relationship Between Parental Self-Reports on Frequency of Control Behaviors with Toddlers and Parental Self-Reports on Frequency of Caregiving Activities with Their Toddlers

- 12 Determine whether there is a relationship between the frequency of control behaviors reported by mothers and fathers with their toddlers and the frequency of caregiving activities parents report participating in with their toddlers.

Based on this research question the following hypotheses were developed and tested using Spearman Rho Correlations at a .05 level of statistical significance.

- H<sub>1</sub> There is no relationship between how frequently mothers report using positive control behaviors with their toddlers and how frequently mothers report participating in caregiving activities with their toddlers.
- H<sub>2</sub> There is no relationship between how frequently mothers report using positive control behaviors with their toddlers and how frequently mothers report participating in specific caregiving activities of feeding, hygiene, rest and general care with their toddlers.
- H<sub>3</sub> There is no relationship between how frequently fathers report using positive control behaviors with their toddlers and how frequently fathers report participating in caregiving activities with their toddlers.
- H<sub>4</sub> There is no relationship between how frequently fathers report using positive control behaviors with their toddlers and how frequently fathers report participating in specific caregiving activities of feeding, hygiene, rest and general care with their toddlers.
- H<sub>5</sub> There is no relationship between how frequently mothers report using negative control behaviors with their toddlers and how frequently mothers report participating in caregiving activities with their toddlers.
- H<sub>6</sub> There is no relationship between how frequently mothers report using negative control behaviors with their toddlers and how frequently mothers report participating in specific caregiving activities of feeding, hygiene, rest, and general care with their toddlers.
- H<sub>7</sub> There is no relationship between how frequently fathers report using negative control behaviors with their toddlers and how frequently fathers report participating in caregiving activities with their toddlers.

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- H<sub>8</sub> There is no relationship between how frequently fathers report using negative control behaviors with their toddlers and how frequently fathers report participating in specific caregiving activities of feeding, hygiene, rest and general care with their toddlers.

The findings for Research Question Twelve, Hypotheses H<sub>1</sub>, H<sub>2</sub>, H<sub>3</sub>, and H<sub>4</sub> are reported in Table 19 with correlations made between the frequency of parental self-reported caregiving activities with toddlers and the frequency of parental self-reported positive control behaviors with toddlers. The findings for Research Question Thirteen, Hypotheses H<sub>5</sub>, H<sub>6</sub>, H<sub>7</sub>, and H<sub>8</sub> are reported in Table 20 with correlations made between the frequency of parental self-reported caregiving activities and the frequency of parental self-reported negative control behaviors with their toddlers. The positive or negative direction of the correlation is reported together with statistical significance level for each hypothesis in Tables 15 and 16.

No statistically significant correlations, in either a positive or a negative direction, were found between parental self-reports on the frequency of parental caregiving activities with toddlers and parental self-reports on the frequency of parental positive control behaviors with toddlers. Based on these findings, null Hypotheses H<sub>1</sub>, H<sub>2</sub>, H<sub>3</sub>, and H<sub>4</sub> are accepted, Table 16 also showed no statistically significant relationships between parental self-reports concerning frequency of their caregiving activities with toddlers and parental self-reports regarding frequency of their negative control behaviors with their toddlers. The frequency of fathers' general caregiving activities with toddlers did approach a significant correlation with fathers' negative control behaviors with toddlers. The correlation was a  $-.4920$  at a  $.075$  level of statistical significance. However, the findings indicate that null Hypotheses H<sub>5</sub>, H<sub>6</sub>, H<sub>7</sub>, and H<sub>8</sub> are accepted.

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Table 15

Parental Self-Reports on Frequency of Positive Control  
Behaviors with Their Toddlers Related to Parental Self-Reports  
on Frequency of Caregiving Activities with Their Toddlers

Hypothesis Number Type of Parental Caregiving Activity	Correlated with: Positive Control Behavior of Mothers with Toddlers	Correlated with: Positive Control Behavior of Fathers with Toddlers
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H <sub>1</sub> and H <sub>3</sub>		
Total of all caregiving activities on the part of parents with toddlers	+.3951 Sig. .130	+.0677 Sig. .427
H <sub>2</sub> and H <sub>4</sub>		
All caregiving activities involving feeding by parents with toddlers	+.2410 Sig. .252	+.2322 Sig. .260
H <sub>2</sub> and H <sub>4</sub>		
All caregiving activities involving hygiene by parents with toddlers	+.3811 Sig. .139	+.3796 Sig. .140
H <sub>2</sub> and H <sub>4</sub>		
All caregiving activities involving rest by parents with toddlers	+.2637 Sig. .231	-.0805 Sig. .413
H <sub>2</sub> and H <sub>4</sub>		
All caregiving activities involving general care by parents with toddlers	+.000 Sig. .500	-.0251 Sig. .473
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Table 16

Parental Self-Reports on Frequency of Negative Control  
Behaviors with Their Toddlers Related to Parental Self-Reports  
on Frequency of Caregiving Activities with Their Toddlers

Hypothesis Number Type of Parental Caregiving Activity	Correlated with: Negative Control Behaviors of Mothers with Toddlers	Correlated with: Negative Control Behaviors of Fathers with Toddlers
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H <sub>5</sub> and H <sub>7</sub>		
Total caregiving activities of parents with toddlers	-.1673 Sig. .323	-.2255 Sig. .266
H <sub>8</sub> and H <sub>9</sub>		
All caregiving activities involving feeding by parents with toddlers	-.0453 Sig. .451	+.3407 Sig. .168
H <sub>8</sub> and H <sub>9</sub>		
All caregiving activities involving hygiene by parents with toddlers	-.2064 Sig. .284	-.0755 Sig. .418
H <sub>8</sub> and H <sub>9</sub>		
All caregiving activities involving rest by parents with toddlers	-.3856 Sig. .136	-.2177 Sig. .273
H <sub>8</sub> and H <sub>9</sub>		
All caregiving activities involving general care by parents with toddlers	-.0682 Sig. .426	-.4920 Sig. .075 *
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\* Approached a Statistically Significant Relationship

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## Research Question Thirteen

Relationship Between Parental Self-Reports on Frequency  
of Support Behaviors with Toddlers and Parental Self-Reports  
on Frequency of Play Activities with Toddlers

13. Determine whether there is a relationship between the frequency of support behaviors reported by mothers and fathers with their toddlers and the frequency with which mothers and fathers report taking part in play activities with their toddlers.

Based on this research question, the following hypotheses were developed and tested using Spearman Rho Correlations at a .05 level of statistical significance.

- H<sub>1</sub> There is no relationship between how frequently mothers report using positive support behaviors with their toddlers and how frequently mothers report participating in play activities with their toddlers.
- H<sub>2</sub> There is no relationship between how frequently mothers report using positive support behaviors with their toddlers and how frequently mothers report participating in specific play activities of intellectual, social, arousal, and exploratory play with their toddlers.
- H<sub>3</sub> There is no relationship between how frequently fathers report using positive support behaviors with their toddlers and how frequently fathers report participating in play activities with their toddlers.
- H<sub>4</sub> There is no relationship between how frequently fathers report using positive support behaviors with their toddlers and how frequently fathers report participating in specific play activities of intellectual, social, arousal and exploratory play with their toddlers.

The findings for Research Question Thirteen, Hypotheses H<sub>1</sub>, H<sub>2</sub>, H<sub>3</sub>, and H<sub>4</sub> are reported in Table 17 with correlations made between parent self-reports concerning frequency of parental support interactions with toddlers and parental self-reports concerning frequency of play activities with their toddlers. The positive or negative direction of the correlation is reported for each hypothesis along with the statistical significance level.

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Table 17

Relationship Between Frequency of Parental Support Behaviors with  
Toddlers and Frequency of Parental Play Activities with Toddlers

Hypothesis Number Type of Parental Play Activities with Toddlers	Correlated with: Positive Support Behaviors of Mothers with Toddlers	Correlated with: Positive Support Behaviors of Fathers with Toddlers
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H <sub>1</sub> and H <sub>2</sub>		
Total of all play activities on the part of parents with toddlers	+ .0627 Sig. .432	+ .5877 Sig. .037 *
H <sub>2</sub> and H <sub>4</sub>		
Total of all intellectual play activities on the part of parents with toddlers	+ .0393 Sig. .458	+ .0314 Sig. .466
H <sub>2</sub> and H <sub>4</sub>		
Total of all social play activities on the part of parents with toddlers	- .1070 Sig. .385	+ .6400 Sig. .024 **
H <sub>2</sub> and H <sub>4</sub>		
Total of all arousal play activities on the part of parents with toddlers	+ .0314 Sig. .466	+ .6980 *** Sig. .013
H <sub>2</sub> and H <sub>4</sub>		
Total of all exploratory play activities on the part of parents with toddlers	+ .2437 Sig. .249	+ .0781 Sig. .416
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\* Statistically Significant Relationship  
Correlation +.5877  
Significance Level .037

\*\* Statistically Significant Relationship  
Correlation +.6400  
Significance Level .024

\*\*\* Statistically Significant Relationship.  
Correlation +.6980  
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For the data reported in Table 17, three relationships were found statistically significant. Each relationship involved a positive correlation between fathers' self-reports regarding play activities fathers do with their toddlers and frequency of fathers' support interactions with toddlers. The frequency of fathers' total play activities with toddlers had a positive .5877 correlation with frequency of fathers' support behaviors with their toddlers. The relationship was statistically significant at a .037 level. The frequency of fathers' self-reported social play activities with toddlers had a high positive correlation of +.6400 with fathers' self-reported support behaviors with their toddlers. The relationship between these two variables was found to be statistically significant at a .024 level.

For the data reported in Table 17, the strongest relationship, with a +.6980 correlation, was found between fathers' self-reports concerning positive support behaviors with their toddlers and fathers' self-reports concerning frequency of arousal play activities with their toddlers. This relationship was statistically significant at a .013 alpha level.

Based on these findings, null hypotheses for the individual categories of social and arousal play in Hypothesis  $H_4$  Research Question Thirteen, and Hypothesis  $H_2$  Research Question Thirteen are rejected. For the individual categories of intellectual and exploratory play, null Hypothesis  $H_4$  is accepted.

No statistically significant relationships were found between mothers' self-reports regarding play activities mothers do with their toddlers and frequency of mothers' support interactions with their

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toddlers. Thus, the null hypotheses are accepted for Hypotheses  $H_1$  and  $H_3$  from Research Question Thirteen.

#### Research Question Fourteen

##### The Relationship Between Parental Self-Reports Concerning Parent Control Behaviors with Their Toddlers and Parental Self-Reports Concerning Parent Play Activities with Their Toddlers

14. Determine whether there is a relationship between frequency of control behaviors reported by mothers and fathers with their toddlers and frequency of play activities mothers and fathers report taking part in with their toddlers.

Based on Research Question Fourteen, the following hypotheses were developed and tested using Spearman Rho Correlations at a .05 level of statistical significance.

- $H_1$  There is no relationship between how frequently mothers report using positive control behaviors with their toddlers and how frequently mothers report participating in play activities with their toddlers.
- $H_2$  There is no relationship between how frequently mothers report using positive control behaviors with their toddlers and how frequently mothers report participating in particular play activities, i.e. intellectual, social, arousal, and exploratory play with their toddlers.
- $H_3$  There is no relationship between how frequently mothers report using negative control behaviors with their toddlers and how frequently mothers report participating in play activities with their toddlers.
- $H_4$  There is no relationship between how frequently mothers report using negative control behaviors with their toddlers and how frequently mothers report participating in particular play activities, i.e. intellectual, social, arousal, and exploratory play with their toddlers.
- $H_5$  There is no relationship between how frequently fathers report using positive control behaviors with their toddlers and how frequently fathers report participating in play activities with their toddlers.
- $H_6$  There is no relationship between how frequently fathers report using positive control behaviors with their toddlers and how frequently fathers report participating in particular play activities, i.e. intellectual, social, arousal, and exploratory play with their toddlers.

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- H<sub>7</sub> There is no relationship between how frequently fathers report using negative control behaviors with their toddlers and how frequently fathers report participating in play activities with their toddlers.
- H<sub>8</sub> There is no relationship between how frequently fathers report using negative control behaviors with their toddlers and how frequently fathers report participating in particular play activities, i.e. intellectual, social, arousal, and exploratory play with their toddlers.

The findings for Research Question Fourteen, Hypotheses H<sub>1</sub>, H<sub>2</sub>, H<sub>5</sub>, and H<sub>6</sub> are reported in Table 18 with correlations made between the frequency of parental self-reported play activities with toddlers and the frequency of parental self-reported positive control behaviors with toddlers. The findings for Research Question Fourteen, Hypotheses H<sub>3</sub>, H<sub>4</sub>, H<sub>7</sub>, and H<sub>8</sub> are reported in Table 19 comparing the frequency of parental self-reported play activities with toddlers and the frequency of parental self-reported negative control behaviors with toddlers. The positive or negative direction of the correlation is reported, together with the level of statistical significance for each hypothesis in Tables 18 and 19.

A statistically significant relationship was found between fathers' self-reported positive control behaviors with their toddlers and the total of all play activities reported on the part of fathers with their toddlers. The correlation between these variables was a positive .6327 with a .025 level of statistical significance. A statistically significant relationship was also found between frequency of fathers' self-reported positive control behaviors with their toddlers and frequency of fathers' self-reported exploratory play activities with their toddlers. This correlation was high at a positive .7047 with a .012 level of statistical significance.

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Table 18

Relationship Between Parental Positive Control  
Behaviors with Their Toddlers and Parental  
Play Activities with Their Toddlers

Hypothesis Number Type of Parental Play Activities with Toddlers	Correlated with: Positive Control Behaviors of Mothers with Toddlers	Correlated with: Positive Control Behaviors of Fathers with Toddlers
<b>H<sub>1</sub> and H<sub>5</sub></b>		
<b>Total of all play activities of parents with their toddlers</b>	<b>+.2213 Sig. .270</b>	<b>+.6327 Sig. .025 *</b>
<b>H<sub>2</sub> and H<sub>6</sub></b>		
<b>Intellectual play activities of parents with their toddlers</b>	<b>+.3232 Sig. .182</b>	<b>+.2587 Sig. .235</b>
<b>H<sub>2</sub> and H<sub>6</sub></b>		
<b>Social play activities of parents with their toddlers</b>	<b>+.2213 Sig. .270</b>	<b>+.4846 Sig. .078 **</b>
<b>H<sub>2</sub> and H<sub>6</sub></b>		
<b>Arousal play activities of parents with their toddlers</b>	<b>-.0531 Sig. .443</b>	<b>+.3389 Sig. .170</b>
<b>H<sub>2</sub> and H<sub>6</sub></b>		
<b>Exploratory play activities of parents with their toddlers</b>	<b>+.3646 Sig. .151</b>	<b>+.7047 Sig. .012 ***</b>

**\* Statistically Significant Relationship**  
Correlation +.6327      Significance Level .025

**\*\* Approaches a Statistically Significant Relationship**  
Correlation +.4846      Significance Level .078

**\*\*\* Statistically Significant Relationship**  
Correlation +.7047      Significance Level .012

Table 19

Relationship Between Parental Negative Control Behaviors with  
Their Toddlers and Parental Play Activities with Their Toddlers

Hypothesis Number Type of Parental Play Activities with Toddlers	Correlated with: Negative Control Behaviors of Mothers with Toddlers	Correlated with: Negative Control Behaviors of Fathers with Toddlers
$H_3$ and $H_4$		
Total of all play activities of parents with their toddlers	+.0126 Sig. .487	+.3271 Sig. .179
$H_4$ and $H_8$		
Intellectual play activities of parents with their toddlers	+.1415 Sig. .349	+.2412 Sig. .252
$H_4$ and $H_8$		
Social play activities of parents with their toddlers	-.0378 Sig. .459	+.0094 Sig. .490
$H_4$ and $H_8$		
Arousal play activities of parents with their toddlers	+.0321 Sig. .456	+.3325 Sig. .182
$H_4$ and $H_8$		
Exploratory play activities of parents with their toddlers	+.0953 Sig. .397	+.2660 Sig. .229

Based on these findings, null hypothesis  $H_5$  and null hypothesis  $H_6$  for the individual category of exploratory play from Research Question Fourteen are rejected. Null Hypothesis  $H_6$  for the individual categories of intellectual, social and arousal play is accepted. While a  $+0.4846$  correlation was found between frequency of fathers' positive control behaviors toward toddlers and frequency of fathers' social play activities with toddlers this relationship only approached significance at a  $.078$  alpha level.

No statistically significant relationships were found between frequency of mothers' positive control behaviors with their toddlers and frequency of maternal play activities with their toddlers. Based on these findings, null Hypotheses  $H_1$  and  $H_2$  are accepted for Research Question Fourteen.

## CHAPTER V

### DISCUSSION OF FINDINGS

General implications of the research findings from Chapter IV will be discussed in this section followed by an analysis of research findings by categories of research questions. Those questions concerning affiliative behaviors of parents and toddlers will be discussed first. The research questions comparing parental caregiving, play activities, and support-control interactions with toddlers will be considered. The third group of results will be those relating parent-toddler affiliative behaviors with caregiving, play and support-control interactions on the part of parents with their toddlers. Finally, the findings correlating categories of caregiving, play, support and control based on the parental self-report questionnaire will be discussed.

The findings from Chapter IV indicate that minimal differences exist between behavioral styles, type of interactions and activity patterns used by mothers with toddlers when compared with behavioral styles, type of interactions and activity patterns used by fathers with toddlers for the families in this study. These were families with both parents working away from home twenty or more hours per week and with one toddler between fifteen and twenty-three months of age. Parents in this study were between twenty-two and thirty-three years of age. Parents had attended school between twelve and seventeen years. Using



Hollingshead's Four Factor Index of Social Status, which includes occupation and education levels, families could be identified as medium business, minor professional, technical, skilled craftsman, clerical and salesworkers (Hollingshead 1975). All families in the study were Caucasian. Results from the majority of research questions support a no difference conclusion regarding mother-toddler and father-toddler interaction. Results include the following:

1. **No** differences were found between mothers and fathers in how frequently they exhibit affiliative behaviors in individual categories of smiling and laughing; touching, hugging and holding; imitative grimaces; or high pitched vocalizations with their toddlers.
2. **No** differences were found between mothers and fathers in the frequency of their verbal affiliative behaviors, physical affiliative behaviors, or total affiliative behaviors with their toddlers.
3. **No** differences were found between the frequency of toddler affiliation toward mother and father in behavior categories of smiling, looking, laughing, showing toys, and proximity seeking.
4. **No** differences were found between the frequency of toddler affiliation toward mother and father in behavior categories of verbal affiliation, physical affiliation and total affiliation.
5. **No** differences were found between the verbal affiliative behaviors, physical affiliative behaviors or total affiliative behaviors on the part of sons or daughters with their mothers and fathers.
6. **No** differences were found between mothers and fathers in the frequency of their total caregiving behaviors with toddlers or in how often they exhibit individual caregiving behaviors of feeding, rest, hygiene and general care with their toddlers.
7. **No** differences were found between mothers and fathers in the frequency of their intellectual play, arousal play or exploratory play interactions with their toddlers.
8. **No** differences were found between mothers and fathers in the frequency of their verbal and physical support interactions with their toddlers.
9. **No** differences were found between mothers and fathers in the frequency of their positive control behaviors or negative control behaviors with their toddlers.

### Parent-Toddler Affiliative Behaviors

The no difference findings between mothers and fathers in their affiliative behaviors with parents are consistent with findings by other researchers who have studied affiliative behavior in laboratory and structured in-home observations sessions (Belsky 1979, Lamb 1979, Field 1978, Vandel 1979, Clarke-Stewart 1977, Lamb 1977c, Lamb 1977d).

The only difference between mothers and fathers affiliative interaction with toddlers was found in the category of grooming behaviors. Mothers were observed taking part in more grooming behaviors than fathers were. This difference may reflect the greater tendency for mothers to engage in caregiving interactions when compared with fathers. However, this difference is minor since the total number of grooming behaviors displayed by each parent is low (see Table 1).

While no statistically significant differences were found between affiliative interaction on the part of toddlers with mothers and affiliative interaction on the part of toddlers with fathers, it was interesting to note that the frequency of toddler vocalization with parents did approach a statistically significant level and that toddlers vocalized more toward their mothers than toward their fathers (see Table 2). The interaction category for mothers and fathers included a large number of behaviors and may best reflect the tendency for mothers to engage in more verbal interactions with their toddlers than fathers do (Clarke-Stewart 1977, Weinraub and Frankel 1977, Zeglob, Arnold and Forehand 1975).

It seems important to emphasize that there were no differences between mothers and fathers in the category of physical affiliative interaction, particularly since fathers usually engage in more physical

interaction with their toddlers than mothers do (Clarke-Stewart 1977, Belsky 1979, Field 1978, and Parke 1979). However, during the observation sessions, the researcher found mothers using as much physical contact and arousal play as fathers to promote interaction with their toddler before mothers moved toward a more social, didactic style of interaction. This use of physical interaction may relate more to a need by working parents to establish a close relationship with their toddler than it does to gender of parent. It was also interesting to note, that during the observations, this researcher found toddlers frequently sought their fathers for comfort and that fathers took part in a large number of holding, soothing and pacifying behaviors with their toddlers.

#### Comparisons of Parental Caregiving, Play and Support-Control Interactions with their Toddlers

Caregiving activities have been seen as the mother's domain, with most mothers involved in more caregiving behaviors than fathers (Kotelchuck 1976). However, the self-report measures used in this study demonstrate greater involvement on the part of fathers in caregiving activities of all types (see Table 3). This higher level of parental involvement is probably due to both parents working outside the home and may relate to changing roles for parents in these families. Caregiving behaviors involving general care, feeding and rest showed no significant difference between mothers and fathers. However, the behavior category of cleaning or hygiene did show a significant difference between parents, with mothers reporting more involvement in cleaning activities with their toddlers than fathers



did. When all caregiving activities assessed on the questionnaire were totaled, i.e. feeding, cleaning, rest and general care, the results were not statistically significant but did approach a statistically significant level with frequency totals of 45.10 for mothers and 39.40 for fathers. The results suggest that, although fathers in these families took an active role in their toddlers' care, mothers had more responsibility for caregiving tasks with their toddlers.

In the category of play, parental response to the self-report questionnaire showed more similarities than differences between how often mothers and fathers report taking part in play activities with their toddlers. No statistical differences were found between mothers and fathers in the frequency of their reported intellectual play, arousal play, or exploratory play with toddlers. However, a statistically significant difference was found between how often mothers and fathers take part in social play activities with their toddlers. The mean frequency for mothers was reported at 78.90 while the mean frequency for fathers was reported at 7.90. These findings on parental differences in social play activities with toddlers are consistent with other research findings indicating that mothers take part in more social and intellectual play with their toddlers than fathers do (Clarke-Stewart 1977, Zegiob, Arnold and Forehand 1975).

While the research data show a statistically significant difference between total play activities on the part of mothers with toddlers and total play activities on the part of fathers with toddlers, the statistical results lack meaning when a careful analysis is done. Since the mean difference between mothers' total play activities with toddlers and fathers' total play activities with

toddlers is the same as the mean difference between parents in the category of social play, and since categories of intellectual, arousal and exploratory play show minimal frequency differences between parents, findings regarding parental total play activities with toddlers have been affected by results from the social play category (see Table 5). In spite of the statistical findings, the most appropriate conclusion when analyzing the data is that there is little difference between mothers and fathers in how often they take part in total play activities with their toddlers.

The research study found no significant differences between mothers and fathers in their reported use of verbal and physical support behaviors with toddlers or in their reported use of positive or negative control behaviors with toddlers. Although mothers did exhibit a higher level of physical support behaviors toward their toddlers, the difference between mothers and fathers was not statistically significant (see Table 8 and Table 11). These results suggest that mothers and fathers in the study shared values and had a similar approach to childrearing within family units and among all families in the study. Probably the homogeneous nature of these families, both in terms of education and occupation level was a significant factor influencing parental use of support and control interactions when guiding the behavior of their toddlers.

The Relationship Between Parent-Toddler  
Affiliative Behavior and Parental Caregiving, Play,  
and Support-Control Interactions with Toddlers

The four research questions discussed in this section of the chapter look at relationships between data gathered using the parental self-report questionnaire and data collected during the in-home observation sessions concerning parent-toddler affiliative behavior. Pearson Product Moment Correlations were used to determine 1) whether the relationship between variables was positive or negative, i.e. did variables increase at the same rate or did one variable increase while the other decreased and 2) was the relationship significant at a .05 level of statistical significance. For purposes of this discussion, attention will focus on those results which approach a level of statistical significance between .05 and .10.

The data relating frequencies of parental caregiving with frequencies of affiliative behavior between parents and toddlers show no significant relationship between these variables. As a result, it seems reasonable to conclude that there is no relationship between the frequency of mothers' or fathers' caregiving activities with their toddlers and frequency of affiliative behavior between parent and toddler (see Table 4).

However, relationships were found between frequency of parental self-reported play activities with toddlers and frequency of parent-toddler affiliative interaction. Statistically significant relationships were found between fathers' arousal play activities with their toddlers and fathers' affiliative behaviors with their toddlers. This correlation was positive indicating that as fathers report an increase in arousal play activities with their toddlers that the

frequency of fathers' affiliative behavior with their toddlers also increases. This relationship was significant at a .049 alpha level.

Two other relationships between fathers' play activities with toddlers and fathers' affiliative behaviors with their toddlers also approached a statistically significant level. The frequency of fathers' self-reported exploratory play activities with their toddlers reached a .056 level of statistical significance. The correlation between these variables was a positive .5346, indicating a common direction of increase. The total of all play activities on the part of fathers with their toddlers also approached a statistically significant relationship when correlated with fathers' affiliative behaviors with their toddlers. This correlation was a positive .4752 and reached a .083 level of statistical significance.

The results reported in Table 6 suggest that increased paternal play with toddlers, particularly in the categories of arousal and exploratory play, are probably associated with higher frequencies of paternal affiliative behavior toward toddlers. These results are particularly interesting because fathers tend to engage in more arousal and exploratory play with their toddlers than mothers do (Clarke-Stewart 1977, Belsky 1979, and Field 1978) and since research indicates that in many families fathers are more involved in play activities with their toddlers than mothers (Parke 1979). While two relationships between maternal play activities with toddlers and toddler play activities with their mothers approached a statistically significant level, it does not appear that the data reported in Table 7 indicates any meaningful relationship between those variables. In fact, these negative correlations raise questions as to whether higher than average



responses on some questionnaires may have affected the statistical results concerning social play and total play categories reported in Table 7.

As might be expected, relationships were found between parental support interactions with toddlers and parental affiliative interactions with toddlers, though no relationships were found between parental support interactions with toddlers and toddler affiliative interactions with parents. Physical support interactions of mother with toddler were statistically significant at a .042 alpha level when related to affiliative interactions with toddlers. The correlation between these two variables was a positive .5706.

While no relationship for fathers reached a .05 level of statistical significance, two relationships approached statistical significance and are of value to consider along with other data reported in Table 9. Physical support interactions on the part of fathers with toddlers showed a positive .4835 correlation with affiliative behavior on the part of fathers with toddlers. The relationship between these variables reached a .078 level of statistical significance. Total support interactions of fathers with toddlers showed a positive .4503 correlation with affiliative behavior on the part of fathers toward toddlers. This relationship reached a .096 level of statistical significance.

These combined results for mother and father suggest that relationships exist between the frequency of parental self-reported support interactions with toddlers and observed affiliative behaviors on the part of mothers and fathers with their toddlers. This conclusion seems particularly applicable to physical support

interactions on the part of parents with their toddlers. Mothers' and fathers' physical support behaviors were more closely associated with parental affiliative behaviors than were mothers' and fathers' verbal support behaviors.

Results which correlate positive and negative parental control behaviors with affiliative behavior between parent and toddler are mixed for the mother-toddler relationship so that no meaningful conclusion can be reached concerning those results. However, there were statistically significant results concerning positive control interactions on the part of fathers with toddlers. Fathers' positive control interactions showed a positive .7909 correlation with fathers' affiliative behavior toward toddlers. These results were statistically significant at a .003 level. At the same time, fathers' positive control interactions showed a positive .7510 correlation with toddlers' affiliative behavior toward fathers. The relationship between these variables was significant at a .006 alpha level. In combination, the results from Table 12 and Table 13, suggest a strong association between increased frequency of fathers' positive control behaviors toward toddlers and increased frequency of affiliative behaviors between fathers and their toddlers. These data results suggest that the interaction patterns can be viewed as a reciprocal integrated process.

### The Relationship Between Parental Caregiving, Play Activities and Support-Control Interactions with Toddlers

The relationship between categories of interaction and activity assessed using the parental self-report questionnaire were analyzed with the Spearman Rho Correlation at a .05 alpha level. Some of these relationships were statistically significant but, in several situations, it seemed appropriate to conclude that there was no relationship between the categories of data.

Frequency of caregiving activities involving fathers' general care with their toddlers was positively correlated, .6564, with fathers' support behaviors toward their toddlers. This relationship was found to be statistically significant at a .020 level. However, since no other relationships between fathers caregiving activities and fathers support behaviors were statistically significant, it appears that the category of general care on the part of fathers with toddlers may reflect a tendency for higher paternal scores in this category. Of particular interest in Table 18 is the negative relationship between frequency of maternal caregiving activities and frequency of maternal support behaviors toward toddlers. The implication of these data, which are not statistically significant, and therefore may lack accuracy and generalizability, is that mothers who report a higher frequency of caregiving activities may show fewer support behaviors toward their toddlers.

For Research Question Twelve no relationship was found between parental self-reports concerning control behaviors with toddlers and parental self-reports regarding caregiving behaviors with toddlers (see Table 15 and Table 16). Based on these findings from Research Question Eleven and Twelve, it appears that there is no relationship between

support and control interactions on the part of parents with toddlers and caregiving activities on the part of parents with toddlers.

In contrast, the relationship between parental reports of support behaviors with toddlers and parental reports of play activities with toddlers result in several statistically significant relationships for fathers. Frequency of fathers' arousal play activities with toddlers were correlated at a positive .6980 level with fathers' support behaviors with toddlers. These results reached a .013 level of statistical significance. Frequency of fathers' social play activities with toddlers were correlated, at a positive .6400 level, with fathers' positive support behaviors with toddlers. These results were significant at a .024 level.

At the same time, the frequency of fathers' total play activities with toddlers, were correlated at a positive .5877 level with fathers' support behaviors with toddlers. These results were statistically significant at a .037 level. Based on these findings from Table 17, it seems appropriate to conclude that fathers, who report taking part in more play activities with their toddlers, also report exhibiting more support interactions toward their toddlers. It is of interest that similar results were not found for mothers. This may be a function of the more containing, structured play style typical of mothers with their toddlers (Clarke-Stewart 1977, Belsky 1979, and Field 1978).

Similar results were found for fathers and mothers when the frequency of parental self-reported positive control behaviors were considered in relationship to the frequency of parental self-reported play activities with toddlers (see Table 18). Frequency of fathers' exploratory play activities with toddlers was positively correlated, at

a .7047 level, with the frequency of fathers' positive control behaviors with toddlers. This relationship was statistically significant at a .012 level. While not statistically significant, the relationship between fathers' positive control behaviors with toddlers approached statistical significance with a .078 alpha level and a positive correlation of .4846. The total of all fathers' play activities with toddlers was correlated at a positive .6327 level with fathers' positive control behaviors with toddlers. The relationship between these variables was also statistically significant reaching a .025 alpha level. The data suggesting significant relationships between frequency of fathers' support behaviors and positive control behaviors with the frequency of fathers' play activities toward toddlers are further supported by findings in Table 18 which indicate no relationship between reported negative control behaviors by parents with toddlers and reported play activities by parents with toddlers. Thus, the relationship is not between fathers' support-control behaviors and fathers' play activities with toddlers but between parental control and support behaviors with toddlers which are positive, and paternal play activities with toddlers.

#### Overview

As the activity, interactions and behavior patterns discussed in the previous sections are considered, it is evident that social-emotional development for the toddler occurs as the result of many interactions and experiences. Clearly, those interactions and experiences are part of a reciprocal, integrated process, with the behaviors and activities of parents and toddlers mutually affecting one

another (Field 1978, Belsky 1979, and Lamb 1977c). These experiences include aspects of the toddler's social environment, while other experiences include aspects of the natural and man-made environments. And, it is through the toddler's interaction with those environments, that growth takes place for young children in each of the developmental areas.



## CHAPTER VI

### CONCLUSIONS, RECOMMENDATIONS, IMPLICATIONS

#### Conclusions

Analysis of the observational data on parent-toddler affiliative interaction, together with data analysis of parental play, caregiving and support-control interactions, suggest several conclusions applicable to the families taking part in this study. Due to sample size and method of family selection, generalization of these findings beyond the group of families studied is not possible. These conclusions were discussed in terms of the findings presented in Chapter V and are listed here as contributions toward a more complete understanding of mother-toddler and father-toddler relationships.

Based on the research findings, the following conclusions have been reached:

1. There are more similarities than differences in the frequency with which mothers and toddlers and fathers and toddlers express different types of affiliative behavior with one another.
2. The frequency of self-reported father-toddler caregiving activities shows active involvement by fathers in caregiving at a level nearly as high as the frequency of self-reported mother-toddler caregiving activities.
3. The frequency of self-reported parental play activities with toddlers in the areas of intellectual, arousal and exploratory play were similar for mothers and fathers.
4. Mothers report taking part in significantly more social play activities with their toddlers than fathers do.
5. Mothers and fathers report using similar frequencies of verbal and physical support interactions with their toddlers.



6. Mothers and fathers report using similar frequencies of positive and negative control interactions with their toddlers.
7. There is no relationship between how often mothers or fathers report taking part in caregiving activities with their toddlers and how frequently parents and toddlers exhibit affiliative behaviors with each other.
8. Fathers who report more play activities with their toddlers, especially arousal and exploratory play, also exhibit more affiliative behaviors toward their toddlers.
9. Mothers and fathers who report higher frequencies of support behaviors toward their toddlers also exhibit higher frequencies of affiliative behaviors toward their toddlers.
10. Fathers who report higher frequencies of positive control behaviors toward their toddlers exhibit more affiliative behaviors toward their toddlers and receive more affiliative behaviors from their toddlers.
11. No consistent relationships can be established between the frequency of parental self-reported caregiving activities with toddlers and the frequency of parental self-reported support behaviors toward toddlers.
12. No relationship can be established between the frequency of parental self-reported caregiving activities with toddlers and the frequency of parental self-reported control behaviors toward toddlers.
13. Fathers who report frequent play activities with toddlers, especially arousal and social play, also report higher levels of support behaviors toward their toddlers.
14. No relationship was found between reports by mothers on frequency of play activities with toddlers and reports by mothers on frequency of their support behaviors toward toddlers.
15. Fathers who report frequent play activities with toddlers, especially exploratory and social play, also report higher levels of positive control behaviors toward toddlers.
16. No relationship was found between reports by mothers on frequency of play activities with toddlers and reports by mothers on frequency of positive control behaviors toward toddlers.
17. No relationship was found between reports by mothers or fathers on frequency of play activities with toddlers and reports by either parent on frequency of negative control behaviors toward toddlers.

In general, there were more similarities than differences found in the mother-toddler and father-toddler relationship among the ten families in this study. The dual-career nature of these families may have been one factor contributing to these similarities. However, when the education and occupation status of parents in these families are taken into account, it appears that these in-home data consistently represent laboratory findings related to mother-father interactions with infants and toddlers and that, within families of a middle range socio-economic status, perceptions of roles, interactions and activities appropriate for mothers and fathers may be changing.

#### Limitations of the Study

The research limitations acknowledged in the first chapter are the primary limitations of this study. These limitations are expanded below:

1. The study was conducted with families who had one child in the fifteen to twenty-three month age range. As such, the results can not be generalized to families with children outside that age range, nor to families with more than one child.
2. The mothers and fathers in this study were both employed or attending school away from home twenty or more hours per week so that findings are limited in the type of families to whom they apply.
3. Ten families were selected through a non-randomized process, decreasing the strength of the statistical techniques used in data analysis and decreasing the possibility for generalizing the research results.
4. Coding during the observation session focused on mother-toddler affiliative interaction and father-toddler affiliative interaction with no coding done for mother-father interactions. Information on parental interactions could also be useful in better understanding parent-toddler interaction.

5. Information on the type of activities mothers, fathers and toddlers do during the observation sessions could provide additional understanding of family dynamics and more detailed information regarding parent-toddler affiliative interactions.

### Recommendations

The research findings, together with experience collecting these data point toward several possibilities for further research with families who have toddlers in the same approximate age range as the families in this research. Replications of the study with other family units would provide a better understanding as to whether similar results regarding mother-toddler and father-toddler relationships could be found using the same methodology. Among the possibilities using this research design would be:

1. Identifying families of a similar education-occupation background where the father would be the only parent working outside the home.
2. Identifying, if possible, families of a similar education-occupation background where the mother would be the only parent working outside the home.
3. Identifying minority families of a similar education-occupation background where both father and mother work outside the home.
4. Identifying minority families of a similar education-occupation background where only one parent would be working outside the home.

As a result of more extended experiences than the initial one family pilot study with the parental self-report questionnaire and the observational procedures for affiliative behaviors, there are possibilities for methodological change which may facilitate data collection, could clarify inconsistencies in the research findings when using the self-report questionnaire, and may extend the family types or family configurations with whom similar research could be conducted.

First, changes in the self-report questionnaire would be minor in such areas as caregiving and support. Based on questions, comments, and reactions from parents taking part in this study more changes may be appropriate in the areas of play and control. Suggestions for change are listed below and could be accomplished without significantly altering the basic questionnaire included in Appendix B. A revised questionnaire incorporating these same changes is included in Appendix C.

1. Under caregiving the section on diapering in the category of hygiene could be changed to include toilet training and read diapering and toileting.
2. Under the general heading of play:
  - a. The category of games could read only games, without further explanation since the additional games named raised questions of interpretation among a few parents.
  - b. Including a third arousal play question would make the number of questions in the arousal play category consistent with the categories of intellectual, social and exploratory play. This change might best be accomplished in the following manner:
    - 1) Changing tickle, tumble and roughhouse to tumble and roughhouse since those two activities include more gross motor involvement than tickling.
    - 2) Adding a category of tickle and peek using the same per day responses so that arousal play would include three categories.
  - c. Eliminate categories of encourage independent play and encourage play with other children. Neither category is consistently interpreted by parents, and while both are important play concepts, they do not correspond well to the other play categories assessed using this questionnaire.
3. Under the section on support-control, eliminate the question--give directions or commands. This question overlaps with two other positive control questions, i.e. give suggestions or instructions and make or explain rules. In addition, eliminating this question would mean that the questionnaire would include the same number of questions concerning positive and negative control interactions.

Second, while changes in the observational procedures would significantly alter the research design, it is the opinion of this researcher that the following changes would increase accuracy, permit more possibilities for using the collected data and could provide the researcher with more flexibility during the observational time period.

1. Use of the video camera and recorder for taping both auditory and visual components of parent-toddler interaction in the home. While this method of data collection is more intrusive and disruptive for families than the presence of a researcher recording by hand, the results could be of value if several two hour observations were done with each family. Parent-toddler interactions would, over the course of several visits, become more representative of typical interactions between parent and child.
2. Recording of affiliative interactions could be done following each in-home visit. This would permit the researcher to record other interactions parents and toddlers do together, as well as recording the type of activities parents and toddlers do during those times when no affiliative interaction occurs.
3. Tapes could be valuable in pointing out other interaction sequences, or activities which provide a more comprehensive understanding of parent-toddler affiliative behaviors and of the parent-toddler relationship.
4. Video-taping would also permit analysis of mother-father interactions and the relationship between their interaction patterns and the interaction patterns of each parent with their toddler and of toddlers toward each of their parents.

5. Use of taping and recording would also permit analysis of sequences of interaction. It would not only be possible to determine who initiated and terminated interactions but, at the same time, information regarding the order of behavioral interaction could be analyzed. By looking at sequence, it might be possible to move from an analysis which is basically dyadic to an analysis which could be considered triadic in nature.
6. Recording interactions using video cameras and auditory tapes would also permit the researcher to study families with more than one child. This would not only permit the study of sibling relationships but might also enable comparisons to be made between affiliative behaviors, caregiving activities, play experiences and support-control interactions in one child families with the same variables in families with more than one child.
7. Though during taped observations, researchers would be involved in a number of mechanical tasks related to operating the equipment, there could be more possibility for creative observation of other factors regarding parental roles, parental decision-making, space utilization in the home, or toy and equipment selection which might be associated with the parent-toddler relationship.
8. Less structured approaches to the study of parent-toddler relationships and parent-toddler affiliative interaction would also be possible. For example, use of unstructured observations which would focus on the activities and interactions preceding and occurring during periods of frequent and limited affiliation would also make a contribution to understanding the process of

affiliation and the reciprocal dynamic nature of the father-mother-toddler relationship.

9. The use of taped observations would permit coding of visits from grandparents, aunts and uncles and family friends. Characteristics of affiliation for these individuals with the toddler could be observed, as well as observing changes in mother-toddler and father-toddler interaction during visits from extended family and friends.

### Implications

This study has implications for further research which examines variables in the same manner or incorporates methodological changes to study similar factors in parent-toddler relationships. While many implications for future research were specified in the previous section, it is probably the theoretical frame of reference for research, more than specific methodological aspects of this study, which may best assist professionals in understanding the parent-child relationship. It seems appropriate that research focus on interactions in the home, that research on parent-child relationships recognize those relationships as dynamic and reciprocal, that research on parent-child relationships take into account multiple variables, and whenever possible that research on parent toddler relationships utilize observation procedures.

Implications also exist for education programs especially in the areas of family life education, parent education, and provision of supportive services for families.

First, it seems appropriate to look at data from this research in combination with data from laboratory settings and recognize when teaching at graduate and undergraduate levels that, in many families today, there may be more similarities than differences between mothers and fathers in their interactive styles and in the type of activities they do with their toddlers.

Second, when emphasis is placed on family life education at a secondary level, that the basic educational experiences might most appropriately be provided for males as well as for females. When in many young families both parents work outside the home, it is likely that roles for fathers will continue to change just as roles for mothers have. The educational system could serve a positive role in this change process by facilitating knowledge and comfort levels for young males who will take new roles as fathers which were not previously modeled in their own family situations.

Third, parent education classes, particularly those associated with adult continuing education tend to focus on a curriculum and approach to learning with which many women are comfortable. These courses could also develop curricula or approaches to parent education which would attract more fathers. Parent education courses might also find useful these research results and the literature review material when looking at parental roles in toddler development.

Finally, in the area of family supportive services, it should be further apparent, as much research and practical experience have already indicated, that the total family experience impacts on the child and that knowledge about children and about child development makes a difference in the child's life experiences. Thus, supportive



**programs** may be most influential in promoting healthy adjustment and **growth** when those programs focus on young families with young children, **and** when those programs provide participants with as much knowledge and **under**standing regarding children as possible in an atmosphere which is **supportive** of family needs.

## APPENDICES

APPENDIX A  
LETTER TO FAMILIES REFERRED BY MINISTER  
PARENTAL CONSENT FORM

Dear \_\_\_\_\_,  
(parent's name)

Your minister \_\_\_\_\_ (minister's name) suggests you may be willing to participate in a study I am conducting about parents and their toddlers.

The study is part of my research work toward a doctoral degree I am completing in Family and Child Ecology at Michigan State University. The study includes four in-home visits at a time when father, mother, and toddler are at home. Parents are asked as part of the study to complete a short questionnaire about parenting. University research requires that all information gathered as part of any study remain confidential. While the questions asked of you as parents only include information you would probably be willing to share with others, I can assure you that neither your names nor your child's name will be used or associated with the information gathered.

I will be contacting you by telephone within the next week and hope that you are able to participate in this study. As parents, I think you will find it an interesting experience.

Please feel free to contact me any time you wish to do so. My telephone number is 238-1092 in Flint and my mailing address is below.

Thank you for your assistance.

Sincerely,

Mark S. Diana

621 South Meade Street #9  
Flint, Michigan 48503

## Parental Consent Form

We together with our child, have agreed to participate in a **research** study concerning parent-toddler interaction. The graduate **student** conducting this research, Mark S. Diana, has explained to us **that** the research will include four in-home visits. During the last **three** of these visits, the graduate student will observe our child and **ourselves** as we interact with one another. The researcher has **encouraged** us to do the activities we would normally participate in at **the** time of day these observations occur. The first visit involves **discussion** of the research project and a time for us to become **acquainted** with the researcher. At that time, written consent will be **obtained** from us as parents. Also during the final visit, we will be **asked** to complete a questionnaire about our child's play activities and **about** how we interact with our child.

The research study has been explained to us and we understand **there** will be observations as well as questionnaires included as part **of** this study. We freely consent to participate in this research and **recognize** that at any time we wish to do so we may freely discontinue **our** participation in this study.

We understand that the results of this research are strictly **confidential**, and that neither our names nor our child's name will be **associated** with the data gathered. When this study is concluded, we **will** be able to obtain from the researcher copies of the information **gathered**.

We consent to participate in this research study and assent to our **child's** \_\_\_\_\_ participation in this study.  
(complete with child's full name)

\_\_\_\_\_  
(father's full name)      (mother's full name)      (date)

APPENDIX B

OBSERVATIONAL CHART

PARENTAL SELF-REPORT QUESTIONNAIRE

Date \_\_\_\_\_

## Toddler

- smiling
- vocalizing
- ^looking
- ^laughing
- showing toys
- proximity seeking

## Mother

- smiling and laughing
- touching, hugging, holding
- imitative grimaces
- high pitched vocalizations
- grooming

## Toddler

- smiling
- vocalizing
- looking
- laughing
- showing toys
- proximity seeking

Father

- smiling and laughing
- touching, hugging, holding
- imitative grimaces
- high pitched vocalizations
- grooming

A full-page view of a blank sheet of graph paper. The grid consists of small squares formed by thin black lines. There are approximately 20 columns and 30 rows of squares. A slightly thicker vertical line runs down the left side, creating a margin. Another slightly thicker horizontal line runs across the top, creating a header space. The rest of the page is filled with the standard grid pattern.

Coding will be done with numbers to include the sequence of behaviors.

**Time** 2:12 P.M.

Room Kitchen

**Date** 4/19/83

## Coding for Affiliative Response

## Toddler

- smiling
- vocalizing
- looking
- laughing
- showing toys
- proximity seeking

Mother

- smiling and laughing
- touching, hugging, holding
- imitative grimaces
- high pitched vocalizations
- grooming

Toddler

- smiling
- vocalizing
- looking
- laughing
- showing toys
- proximity seeking

Father

- smiling and laughing
- touching, hugging, holding
- imitative grimaces
- high pitched vocalizations
- grooming

[illegible]

Coding will be done with numbers to include the sequence of behaviors.





Questionnaire to Assess Parent-Toddler  
Information, Caregiving Activities, Play  
Experiences, and Support and Control Techniques

The purpose of this questionnaire is to gather information about **your** toddler and the activities you do with that child. Your responses **to** these questions will be used in combination with the observations **done** as part of this research study. There are no right or wrong **answers** to these questions. Please keep in mind that answers will vary **depending** upon the interests and schedules you and your child have.

1.      \_\_\_\_\_  
          (child's first name)      (child's sex)      (child's birthdate)
2.      \_\_\_\_\_  
          (parent's sex)      (parent's age at last birthday)
3.      \_\_\_\_\_  
          (parent's occupation)      (year's of school completed)
- \_\_\_\_\_
- (hours employed outside home/per week)

The next section of this questionnaire involves caregiving **acti**vities which need to be provided for children. The questions are **aske**d in order to determine how frequently, on the average, you do each **of** the caregiving activities listed below. Please think of weekends as **we**ll as days of the week and check the response that best tells how **of**ten you take part in each activity.

## **FEEDING**

### breakfast

— each day of    — five-six    — three-four    — one-two    — never  
  the week      times a week    times a week    times a week

### lunch

— each day of    — five-six    — three-four    — one-two    — never  
  the week      times a week    times a week    times a week

dinner

☐ **each day of**    ☐ **five-six**    ☐ **three-four**    ☐ **one-two**    ☐ **never**  
☐ **the week**    times a week    times a week    times a week

night-snacks

☐ **each day of**    ☐ **five-six**    ☐ **three-four**    ☐ **one-two**    ☐ **never**  
☐ **the week**    times a week    times a week    times a week

**HYGIENE**diapering

☐ **six or more**    ☐ **four-six**    ☐ **two-four**    ☐ **one-two**    ☐ **never**  
☐ **times a day**    times a day    times a day    times a day

dressing

☐ **six or more**    ☐ **four-six**    ☐ **two-four**    ☐ **one-two**    ☐ **never**  
☐ **times a day**    times a day    times a day    times a day

cleaning: hands and face

☐ **six or more**    ☐ **four-six**    ☐ **two-four**    ☐ **one-two**    ☐ **never**  
☐ **times a day**    times a day    times a day    times a day

bathing

☐ **six or more**    ☐ **four-six**    ☐ **two-four**    ☐ **one-two**    ☐ **never**  
☐ **times a day**    times a day    times a day    times a day

**REST**put down for a nap

☐ **daily**    ☐ **five-six**    ☐ **three-four**    ☐ **one-two**    ☐ **never**  
                  times a week    times a week    times a week

put to sleep at night

☐ **daily**    ☐ **five-six**    ☐ **three-four**    ☐ **one-two**    ☐ **never**  
                  times a week    times a week    times a week

put back to sleep during the night

☐ **daily**    ☐ **five-six**    ☐ **three-four**    ☐ **one-two**    ☐ **never**  
                  times a week    times a week    times a week

**GENERAL CARE**comfort and soothe

— **s**ix or more — **f**ive-six — **t**hree-four — **o**ne-two — **n**ever  
 — **t**imes a day — **t**imes a day — **t**imes a day — **t**imes a day

watch inside play

— **s**ix or more — **f**ive-six — **t**hree-four — **o**ne-two — **n**ever  
 — **t**imes a day — **t**imes a day — **t**imes a day — **t**imes a day

watch outside play

— **s**ix or more — **f**ive-six — **t**hree-four — **o**ne-two — **n**ever  
 — **t**imes a day — **t**imes a day — **t**imes a day — **t**imes a day

The questions below are about particular play activities you may do with your child. Please check the response which best describes how often you take part in each activity with your child, or encourage your child to play in this way. The questions apply to how often you do each activity with your child, not to how frequently your child takes part in this kind of play by him or herself.

playing with puzzles

— **f**ive-six — **t**hree-four — **t**wo-three — **o**nce a day — **n**ever  
 — **t**imes a day — **t**imes a day — **t**imes a day

building and stacking blocks

— **f**ive-six — **t**hree-four — **t**wo-three — **o**nce a day — **n**ever  
 — **t**imes a day — **t**imes a day — **t**imes a day

looking at books

— **f**ive-six — **t**hree-four — **t**wo-three — **o**nce a day — **n**ever  
 — **t**imes a day — **t**imes a day — **t**imes a day

dress-up or pretend

— **f**ive-six — **t**hree-four — **t**wo-three — **o**nce a day — **n**ever  
 — **t**imes a day — **t**imes a day — **t**imes a day

dolls or stuffed animals

— **f**ive-six — **t**hree-four — **t**wo-three — once a day — never  
 — times a day — times a day — times a day

games-songs, peek, pat-a-cake

— **f**ive-six — **t**hree-four — **t**wo-three — once a day — never  
 — times a day — times a day — times a day

tickle, tumble and roughhouse

— **f**ive-six — **t**hree-four — **t**wo-three — once a day — never  
 — times a day — times a day — times a day

riding or bouncing

— **f**ive-six — **t**hree-four — **t**wo-three — once a day — never  
 — times a day — times a day — times a day

mechanical toys (wind-up toys, jack-in-the-box, toys with motors)

— **f**ive-six — **t**hree-four — **t**wo-three — once a day — never  
 — times a day — times a day — times a day

play with toys to sort or order

— **f**ive-six — **t**hree-four — **t**wo-three — once a day — never  
 — times a day — times a day — times a day

play with stacking or connecting toys

— **f**ive-six — **t**hree-four — **t**wo-three — once a day — never  
 — times a day — times a day — times a day

encourage independent play (child playing by him or herself)

— **f**ive-six — **t**hree-four — **t**wo-three — once a day — never  
 — times a day — times a day — times a day

encourage play with other children (when you are with your child)

— **f**ive-six — **t**hree-four — **t**wo-three — once a day — never  
 — times a day — times a day — times a day

The following set of questions applies to ways in which you guide **the** behavior of your child. Please check the response which most **closely** applies to ways in which you influence the behavior and play **style** of your son or daughter. Again, keep in mind that there are no **correct** responses to these questions.

share play with child

five-six three-four one-two once a day never  
times a day times a day times a day

approve or praise child's behavior or activities

five-six three-four one-two once a day never  
times a day times a day times a day

use nicknames

five-six three-four one-two once a day never  
times a day times a day times a day

show physical affection with hugs or kisses

five-six three-four one-two once a day never  
times a day times a day times a day

give suggestions or instructions

five-six three-four one-two once a day never  
times a day times a day times a day

give directions or commands

five-six three-four one-two once a day never  
times a day times a day times a day

make or explain rules

five-six three-four one-two once a day never  
times a day times a day times a day

threaten punishment or scold

five-six three-four one-two once a day never  
times a day times a day times a day

spank or physically punish

five-six three-four one-two once a day never  
times a day times a day times a day





APPENDIX C  
REVISED  
PARENTAL SELF-REPORT QUESTIONNAIRE  
PRESENTED IN PROPOSED FUTURE RESEARCH

Revised

Questionnaire to Assess Parent-Toddler Information,  
Caregiving Activities, Play Experiences, and Support  
and Control Techniques



The purpose of this questionnaire is to gather information about **your** toddler and the activities you do with that child. Your response **to** these questions will be used in combination with the observations **done** as part of this research study. There are no right or wrong **answers** to these questions. Please keep in mind that answers will vary **depending** upon the interests and schedules you and your child have.

1. \_\_\_\_\_  
(child's first name)      (child's sex)      (child's birthdate)
2. \_\_\_\_\_  
(parent's sex)      (parent's age at last birthday)
3. \_\_\_\_\_  
(parent's occupation)      (year's of school completed)
- \_\_\_\_\_  
(hours employed outside the home/per week)

The next section of this questionnaire involves caregiving activities which need to be provided for children. The questions are asked in order to determine how frequently, on the average, you do each of the caregiving activities listed below. Please think of weekends as well as days of the week and check the response that best tells how often you take part in each activity.

### FEEDING

#### breakfast

— each day of the week    — five-six times a week    — three-four times a week    — one-two times a week    — never

#### lunch

— each day of the week    — five-six times a week    — three-four times a week    — one-two times a week    — never



dinner

☐ each day of the week   
 ☐ five-six times a week   
 ☐ three-four times a week   
 ☐ one-two times a week   
 ☐ never

night-snacks

☐ each day of the week   
 ☐ five-six times a week   
 ☐ three-four times a week   
 ☐ one-two times a week   
 ☐ never

**HYGIENE**diapering and/or toileting

☐ six or more times a day   
 ☐ four-six times a day   
 ☐ two-four times a day   
 ☐ one-two times a day   
 ☐ never

dressing

☐ six or more times a week   
 ☐ four-six times a day   
 ☐ two-four times a day   
 ☐ one-two times a week   
 ☐ never

cleaning: hands and face

☐ six or more times a day   
 ☐ four-six times a day   
 ☐ two-four times a day   
 ☐ one-two times a day   
 ☐ never

bathing

☐ six or more times a day   
 ☐ four-six times a day   
 ☐ two-four times a week   
 ☐ one-two times a day   
 ☐ never

**REST**put down for nap

☐ daily   
 ☐ five-six times a week   
 ☐ three-four times a week   
 ☐ one-two times a week   
 ☐ never

put to sleep at night

☐ daily   
 ☐ five-six times a week   
 ☐ three-four times a week   
 ☐ one-two times a week   
 ☐ never

put back to sleep during the night

☐ daily   
 ☐ five-six times a week   
 ☐ three-four times a week   
 ☐ one-two times a week   
 ☐ never

**GENERAL CARE**comfort and soothe

☐ six or more  
times a day
 ☐ five-six  
times a day
 ☐ three-four  
times a day
 ☐ one-two  
times a day
 ☐ never

watch inside play

☐ six or more  
times a day
 ☐ five-six  
times a day
 ☐ three-four  
times a day
 ☐ one-two  
times a day
 ☐ never

watch outside play

☐ six or more  
times a day
 ☐ five-six  
times a day
 ☐ three-four  
times a day
 ☐ one-two  
times a day
 ☐ never

The questions below are about particular play activities you may do with your child. Please check the response which best describes how often you take part in each activity with your child, or encourage your child to play in this way. The questions apply to how often you do each activity with your child, not to how frequently your child takes part in this kind of play by him or herself.

playing with puzzles

☐ five-six  
times a day
 ☐ three-four  
times a day
 ☐ two-three  
times a day
 ☐ once a day
 ☐ never

building and stacking blocks

☐ five-six  
times a day
 ☐ three-four  
times a day
 ☐ two-three  
times a day
 ☐ once a day
 ☐ never

looking at books

☐ five-six  
times a day
 ☐ three-four  
times a day
 ☐ two-three  
times a day
 ☐ once a day
 ☐ never

dress-up or pretend

☐ five-six  
times a day
 ☐ three-four  
times a day
 ☐ two-three  
times a day
 ☐ once a day
 ☐ never

dolls or stuffed animals

☐ five-six times a day   
 ☐ three-four times a day   
 ☐ two-three times a day   
 ☐ once a day   
 ☐ never

games

☐ five-six times a day   
 ☐ three-four times a day   
 ☐ two-three times a day   
 ☐ once a day   
 ☐ never

tumble and roughhouse

☐ five-six times a day   
 ☐ three-four times a day   
 ☐ two-three times a day   
 ☐ once a day   
 ☐ never

tickle and peek

☐ five-six times a day   
 ☐ three-four times a day   
 ☐ two-three times a day   
 ☐ once a day   
 ☐ never

riding or bouncing

☐ five-six times a day   
 ☐ three-four times a day   
 ☐ two-three times a day   
 ☐ once a day   
 ☐ never

mechanical toys (wind-up toys, jack-in-the-box, toys with motors)

☐ five-six times a day   
 ☐ three-four times a day   
 ☐ two-three times a day   
 ☐ once a day   
 ☐ never

play with toys to sort or order

☐ five-six times a day   
 ☐ three-four times a day   
 ☐ two-three times a day   
 ☐ once a day   
 ☐ never

play with stacking or connecting toys

☐ five-six times a day   
 ☐ three-four times a day   
 ☐ two-three times a day   
 ☐ once a day   
 ☐ never



The following set of questions applies to ways in which you guide the behavior of your child. Please check the response which most closely applies to ways in which you influence the behavior and play style of your son or daughter. Again, keep in mind that there are no correct responses to these questions.

share play with child

☐ five-six times a day    ☐ three-four times a day    ☐ one-two times a day    ☐ once a day    ☐ never

approve or praise child's behavior or activities

☐ five-six times a day    ☐ three-four times a day    ☐ one-two times a day    ☐ once a day    ☐ never

use nicknames

☐ five-six times a day    ☐ three-four times a day    ☐ one-two times a day    ☐ once a day    ☐ never

give suggestions or instructions

☐ five-six times a day    ☐ three-four times a day    ☐ one-two times a day    ☐ once a day    ☐ never

make or explain rules

☐ five-six times a day    ☐ three-four times a day    ☐ one-two times a day    ☐ once a day    ☐ never

threaten punishment or scold

☐ five-six times a day    ☐ three-four times a day    ☐ one-two times a day    ☐ once a day    ☐ never

spank or physically punish

☐ five-six times a day    ☐ three-four times a day    ☐ one-two times a day    ☐ once a day    ☐ never

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