

WORKING MOTHERS AND MATERNAL ATTACHMENT:  
AN EXPLORATORY STUDY

by

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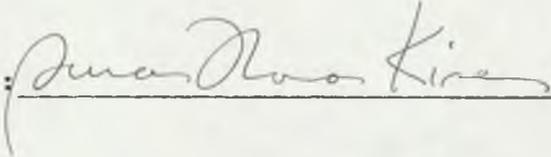
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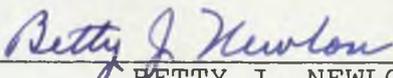
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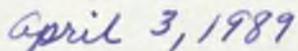
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## ABSTRACT

This research study, entitled *Working Mothers and Maternal Attachment: An Exploratory Study*, investigated the psychology of the working mother by collecting data over nine months to evaluate the effect of a mother's return to work on her maternal attachment behaviors. Data were derived from questionnaires, videotapes, and interviews. The purpose was to learn if maternal attachment, a dynamic change process, was modified if the mother returned to work during the first three months of the newborn's life.

It was shown that maternal attachment was affected by returning to work, according to the instrumentation used. Other variables impacting on maternal attachment were in strength of social support, impact of life events, and in misperception of power.

## CHAPTER 1

## INTRODUCTION

Within the past decade, our culture has witnessed a remarkable change in the care of infants under a year of age. In 1975, less than one out of every three mothers with a child was employed. In 1985, one out of every two mothers with an infant under a year was working (Hofferth & Phillips, 1987; Belsky, 1988; Belsky & Rovine, 1987; Bargelow, Vaughan, & Molitor, 1987).

Recent studies are beginning to explore the psychosocial ramifications involved in such a change, understanding that working women are not new to our culture, but that working mothers working so soon after the birth of their infants, are (Lee, 1983; Parry, 1987; Barnett & Baruch, 1985; McKim, 1987, Belsky & Rovine, 1988; Chase-Lansdale & Owen, 1987). These studies and others find there to be significant stress associated with employment and role conflict on mothers (Crnic, Greenberg, Robinson, & Ragosin, 1984; Crittenden & Bonvillian, 1984; Fleming, Flett, Rubin, & Shaul, 1988), and that separation anxiety exists in mothers and infants both (Owen & Cox, 1988; Howes, Rodning, Galluzzo, & Myers, 1987; Lerner & Galambos, 1986; Hock, 1984).

Much has been written on the behaviors involved in infant attachment (Bowlby, 1951, 1958, 1965, 1968; Ainsworth, 1964, 1974, 1982; Brazelton, 1984, 1987; Belsky & Nezworski, 1988; Crittenden, 1988), maternal attachment (Bowlby, 1982; Brazelton, 1984, 1987; Barnard, 1978; David & Appell, as cited in Bowlby, 1982; Ainsworth, 1979) and the ongoing attachment behaviors of adulthood (Heard, 1986, 1987; Weiss, 1986), but little has been determined thus far concerning how maternal attachment is affected by the necessity, both financial and psychosocial, of returning to work a few months after a baby is born. Is such a fact considered a stressor in the attitudinal makeup of the mother? Does this fact color her perceptions and observations of her baby, of her roles as a mother, a financial provider, and of herself as an individual, separate from her maternal and her working roles? Indeed, does the outer color of her myriad roles of mother, wife, daughter, and financial provider influence the inner color of her attitudes, thereby modifying observable maternal attachment behaviors (Barnard, 1978; Brazelton, 1987) in some way? The answers to these questions formed the substrate of this exploratory study.

#### Purpose of the Study

The purpose of the study was to: (1) investigate the psychology of the working mother by collecting time-specific

data over a period of nine months, using instrumentation that may indicate different attitudes over time; and (2) to clarify, to what degree returning to work affects maternal attachment over a period of nine months postpartum, as well as (3) clarify, if possible, which social and environmental factors modify the stress of returning to work, thus creating greater or lesser attachment security for the infant.

#### Statement of the Problem

Since it has been estimated that one out of every two mothers works outside the home (Hofferth & Phillips, 1987; Belsky, 1988; United States Bureau of the Census, 1987), and since working outside the home has also been shown to be a stressor (Lee, 1983; McKim, 1987; Barnett & Baruch, 1985; Jacobsen & Wille, 1985; Wille & Jacobsen, 1984), this research study was designed to (1) evaluate the effect of the mother's returning to work on her maternal attachment behaviors (Brazelton, 1987; Barnard, 1978), (2) and identify environmental and familial stressors that might trigger problem behaviors in working mothers, especially in the areas of misperceptions in the maternal population, mainly: power, value, reality, and authority (Mahoney (in press), in Nezworski, Tolan, & Belsky, 1988). To this end, the Inventory of Maternal Perception was one of the tests created to determine the possibility of maternal perceptual dysfunction in the four areas of "unknowing" in the population of already

stressed working mothers. Mothers who have problems around power "typically misperceive what events could be controlled, how to exert control over them or know how others were trying to affect control" (Nezworski, Tolan, & Belsky, 1988, p. 376). Mothers who have problems in the value area have difficulty viewing the ethics of a situation. Poor judgement and decision-making are also part of the problems encountered with values. Identity issues were expressed in doubtfulness about their basic nature or personality. The mothers consistently misperceived social cues and were overly sensitive to social norms. Letting the baby cry while compulsively cleaning the house would be, according to Nezworski et al., an identity issue. Finally, the mothers who had concerns around the core theme of reality "showed gaps in their ability to perceive themselves and their world as orderly and consistent. Instead, they felt threatened by chaos" (Nezworski, Tolan, & Belsky, 1988, pp. 376-377). The Inventory of Maternal Perception (Kime & Tsaguris, 1988b) is classified into four parts, each dealing with the four aforementioned core issues.

To clarify and focus on the psychosocial effect of the mother returning to work and its effect on maternal attachment, this research study has been designed to address the following problems:

Problem 1: Does a mothers' returning to work between one and three months postpartum effect maternal attachment behaviors?

Problem 2: Which familial and environmental factors (social support, negative or positive life events, family functioning, maternal self-concept, maternal subjective experience) create a positive effect on attachment ?

Problem 3: Which areas of maternal perception, given the four identified areas of misperception in the general population, to wit: value, identity, reality, and power (Mahoney (in press), quoted in Belsky et al., 1988) will correlate with maternal attachment?

Problem 4: Will aspects of maternal attachment--maternal subjective experience, as measured by the Motherhood Experience Inventory (Kime & Tsaguris, 1988a), and maternal perception, as measured by the Inventory of Maternal Perception (Kime & Tsaguris, 1988b)--correlate with the NCAF scales (Barnard, 1978), a measure of maternal attachment?

### Hypotheses

The following hypotheses were tested:

Hypothesis 1: Returning to work affects maternal attachment between the first and the ninth month postpartum as

measured by the NCAFS Scales and the mothers' post-partum employment dates.

Hypothesis 2: Mothers who have greater social support, fewer negative life events, and stronger self concept, will score higher on the Nursing Child Assessment Feeding Scale (Barnard, 1978), which is considered a reliable and valid tool for assessing infant-parent attachment under age one (Brundage, 1987).

Hypothesis 3: Maternal subjective experience and maternal perception tested in the Motherhood Experience Inventory (Kime & Tsaguris, 1988a) and the Inventory of Maternal Perception (Kime & Tsaguris, 1988b) will negatively correlate with the Nursing Child Assessment Feeding Scale (Barnard, 1978), thus showing the need for a more global perspective in the creation and norming of testing instruments dealing with maternal attachment.

Hypothesis 4: The Motherhood Experience Inventory (Kime & Tsaguris, 1988a) and the Inventory of Maternal Perception (Kime & Tsaguris, 1988b) will produce weak and negative correlations with the NCAF (Barnard, 1978), thus inferring a need for a more global definition and more global measures of maternal attachment.

### Significance of the Study

The significance of this study lies in a threefold perspective: it seeks to combine three research paradigms: the exploratory (Parse, Coyne, & Smith, 1985), the longitudinal (Borg & Gall, 1971), and the pilot (Dempsey & Dempsey, 1986). The first, the pilot, permits preliminary testing of the hypotheses espoused by the Motherhood Experience Inventory (Kime & Tsaguris, 1988a) and the Inventory of Maternal Perception (Kime & Tsaguris, 1988b), which will lead to testing of more precise hypotheses. The second, the exploratory study, involves "an investigation of the meaning of a life event for a group of subjects who shared a particular event" (Parse, Coyne, & Smith, 1985, p. 91). In this project, the study dealt with women who shared two particular life events: the event of birthing and the event of returning to work at a specific time. The third paradigm, the longitudinal, includes studies that collect data from the same people at regularly stated intervals, ranging from a few days to weeks, months or even years. In this particular study, data were collected in the first, third, sixth and ninth months from the same subjects to assess attitude change over time. By attempting to combine these three paradigms, the maternal attachment study seeks to better define and clarify the behaviors and perceptions

endemic to maternal attachment in a limited number of mother-infant dyads over a period of nine months.

Two new assessment instruments were also introduced as a first step in creating a battery whose underlying raisons d'etre involve a greater awareness of how employment impacts on maternity, which may expand the present definitions and understanding of maternal attachment (Brazelton, 1987; Barnard, 1978) and its inferred behaviors (Bowlby, 1982; Belsky, 1988; Ainsworth, 1978) into a more global perspective, that will include blue collar and white collar working women of varying races and nationalities.

#### Assumptions Underlying This Study

For purposes of this study, it is assumed that:

1. The construct being explored, maternal attachment, is a real component of human behavior, one that is developmental in nature; that is, it is part of a greater human attachment system: one that is ongoing. It has also been measured by the Nursing Child Assessment Feeding Scales (Barnard, 1979).
2. The underlying processes involved in maternal attachment are so individual and fluid that a generalizable, time-formulated process cannot be strictly defined or determined at present. This study, being exploratory in nature, deals with the well-defined and observed behaviors involved in the

fluid dynamic of maternal attachment. What may be formulated, instead of a time-limited attachment process, is a non-time limited attachment trajectory, defined as the developmental probability of how the process may go, but, given the dynamics of human differentiation, how the process may NOT go as well.

3. The instrumentation involved in this study, both new and older, are sufficiently valid and reliable to produce meaningful data.
4. Subjects involved in this study were competent, able to read and understand what was asked of them, and, on the questionnaires, respond truthfully.

#### Limitations

This study was limited in nature and number to mothers who returned to work soon after the birth of their children. Though not specified in initial advertising, the subjects obtained were all Caucasian. English was their primary language. This study was also limited in structure as the researcher, a female, did all the videotaping of breast and bottle feeding interactions. Had the researcher been male, different results may have been obtained.

#### Definition of Terms

The following terms will be utilized for the remainder of the study:

Attachment: Is here defined as an open behavioral system, of which maternal attachment is a part. The other parts of the system involve infant and adult attachment. Because it is an open system, it is assumed that attachment is dynamic rather than static, thus allowing the fluid constructs of attachment style and attachment trajectory to emerge.

Attachment Behaviors: In infants, those behaviors which are proximity-seeking and which mediate a bond: sucking, grasping, crying and moving around; in mothers, those behaviors which mediate but also perpetuate a bond: fondling, gazing, and softly touching the infant.

Maternal Attachment: An reciprocal developmental process (Barnard, 1979; Brazelton, 1984) inherent in the development of a flexible social bond (Hinde, 1979; Bretherton, 1980; Bowlby, 1982) between a mother and her baby. The developmental stages are behaviorally based, with socio-economic, maternal age, and infant temperament factors involved as well.

Maternal/Infant Bonding: A dual-directional process by which reciprocity of behavior is mediated by clarity of cues from infant to mother and mother to infant.

Attachment Trajectory: Instead of defining the maternal attachment process as a process, implying the inclusion of time-limitations and developmental

stages, the author believes, arguably, that maternal attachment, given the many variables of mother-infant personality, social, behavioral and affectional variables, is less a process than a trajectory, or probable path in which the developmental variables may go, but may not also.

In "Clinical Applications of Attachment Theory," authors Lieberman and Pawl suggest a similar view, that

. . . it is a disservice both to the theory (attachment theory) and to individual babies to view attachment as an attribute of a relationship that exists only at a point in time when it becomes "obvious," rather than as a complex process that begins at the beginning and is immediately subjected to multiple vicissitudes. Yet this latter approach has become all too common in actual practice. If forming an attachment begins at birth, so does the process by which deviations in attachment many emerge. (Lieberman & Paul, 1988, p. 330)

The word "trajectory" was first used by Belsky and Isabella (1988):

How the mothers treat their babies, and the manner to which the mother-infant relationship develops is likely to be in large measure, a function of who the mother is before the baby is born and of the nature of her relationship with her spouse. It would seem then, that the mother-infant relationship has a developmental history, if not a developmental trajectory [underline mine] even before the child encounters the mother for the first time. (Belsky & Isabella, 1988, p. 87)

Carrying this concept a bit further, it would appear that the difference between a history and a trajectory is the difference between past and future. What

has happened to the mother in the past impacts what will happen to the infant in the future in terms of the attachment dynamic. Therefore, the concept of an attachment trajectory, instead of an attachment process, takes into consideration the uncertainty of future personal events that could impact between a mother and her baby.

#### Summary

One of the major substrates of this research investigation is that stress, whether it be from adjustment to the birth of a baby, or from the knowledge that the mother must leave her baby to return to the workplace, or both, can cause changes in maternal attachment behavior and in health (Pelletier, 1987; Owen & Cox, 1988).

This study chose to evaluate the effect of the mother's return to work on her maternal attachment behavior during the first nine months of the mother's and infants' lives together. The study also chose to discover if there was any positive correlation between positive self concept, strength of family functioning, number of possibly stressful life events, strength of social support, and secure maternal attachment behavior (Barnard, 1978; Brazelton, 1986).

## CHAPTER 2

### LITERATURE REVIEW

#### Introduction

Much has been written in the past seventy years on infant/parent attachment. Many professionals in divergent disciplines--those in anthropology (Mead, 1970), psychology (Ainsworth, 1964, 1969, 1973; Bowlby, 1957, 1965, 1969, 1982; A. Freud, 1946, 1954, 1965; S. Freud, 1905, 1914, 1924, 1938, 1940; Harlow, 1958, 1961, 1963; Lamb, 1979, 1982), ethology (Hinde, 1966), and biology (Lorenz, 1935) have written extensively on the subject. This literature review, however, is reflective of the study done for this thesis, that explores possible attitude changes which may modify the behaviors in maternal attachment, and consequently attachment style, due to maternal employment. Consequently, this literature review will be limited to the following considerations.

1. A short review of ideas that have previously determined the stages involved in the development of infant/parent attachment, and how infant attachment influences maternal attachment.
2. A short review of the literature that includes discussion of attachment as a dynamic developmental concept, not as a static construct.

3. A review of research extant on relations between maternal-infant attachment and maternal employment.
4. A discussion of research on time-related attitude differences that may modify the maternal attachment dynamic in working mothers.

#### Precursor and Criterial Attachment Behaviors

In 1951, John Bowlby, a British psychoanalyst, wrote a paper entitled "Maternal Care and Mental Health" (1951). It outlined measures needed to safeguard the emotional health of children separated from their parents. His further research described how early separation may cause conflict in later love relations (Bowlby, 1958, 1959, as quoted in Brundage, 1987).

From these initial studies in 1951 came the beginnings of a theory of infant attachment based on survival needs. Bowlby theorized that in the African grasslands, where human beings are thought to have descended, certain infant behaviors had survival value, as infants needed these behaviors to derive the needed protection from adults (Bowlby, 1969). These behaviors included crying, sucking, smiling, laughing, and generally, proximity seeking (Bowlby, 1968).

He called such behaviors infant attachment behaviors; they develop in four phases (Bowlby, 1968, pp. 266-268).

During phase 1, beginning at birth and lasting 8-12 weeks, the infant does not discriminate between one caregiver and another. The infant emits precursor attachment behaviors in a random fashion. They do not discriminate the mother from anyone else who takes care of them.

Beginning at about the twelfth week, Phase 2 occurs. This involves the development of a preference for a particular person, usually one who is the caretaker of the baby. This phase lasts approximately six months.

Phase 3 begins when the infant develops the ability to seek and maintain proximity with the attachment figure, usually the mother, through vocalizing and moving about. This phase lasts until the end of the second year.

The final phase begins with the young child's ability to form and maintain a partnership with parents who are now perceived to be separate and distinct beings with their own modes of living.

Bowlby suggests that the infant is most sensitive and ready to form close attachment bonds during the fourth, fifth and sixth months of the first year. This is the period when the infant has the newfound ability to discriminate specifically and very directly between his or her primary caregiver and others. If the infant is separated from his/her primary caregiver, either before or during this period, the infant may show extreme anxiety, and the development of attachment

behaviors may be retarded later (Bowlby, 1969, quoted in Brundage, 1987). Later, Bowlby, citing studies done by Yarrow (1963) and Ainsworth (1978), discussed the "extensive evidence of a strong correlation between the pattern of attachment observed in the infant or older child and the pattern of mothering he is receiving at the time" (Bowlby, 1982, p. 33). This idea was based on the studies of Dr. Mary Ainsworth, once a student of John Bowlby's, who studied many Ganda (African) mothers and their babies. She, like so many others in the field, chose to studies patterns of infant attachment, and, by inference, maternal attachment as well. After all, how well or ill the infant is attached depends on the psychosocial status of the mother.

Ainsworth made a distinction between her work and Bowlby's in that Bowlby had identified and stressed that infant attachment behaviors mediate the development of the attachment bond (1969). Ainsworth, on the other hand, was interested in the "strength and quality of the attachment formed, rather than in the behavior patterns which mediated attachment" (Ainsworth, 1964, p. 52). Thus, Bowlby distinguished between precursor attachment behaviors and Ainsworth distinguished between criterial attachment behaviors. The former involved crying, sucking, clinging and smiling, and all appear to have a goal of maintaining proximity with the chosen attachment figure, encouraging

attachment in both the attachment figure and the infant. In contrast, Ainsworth theorized that displays of criterial attachment behaviors were used to infer the existence of an already existing bond (1964).

Ainsworth described thirteen different patterns of interactions which she labelled attachment behaviors. They were (1) crying, (2) smiling, (3) vocalizing, (4) visual-motor orientation, (4) crying when the attachment figure leaves, (6) following, (7) scrambling, (8) burying face in lap, (9) exploration from a secure base, (10) clinging, (11) lifting arms in greeting, (12) clapping hands in greeting, and (13) approach through locomotion (Ainsworth, 1964).

These criterial attachment behaviors formed the foundation of her development of the Strange Situation Paradigm. This "test" of how well or ill attached the child is to his attachment figure is an experiment controlled by three sets of events: "the child's use of the mother as a secure base from which to explore the environment, the child's response to a stranger and the child's response to separation from her/his mother" (Ainsworth et al., 1978, p. 255).

Ainsworth found that the infant's behavior in a strange situation is correlated with the infant's behavior at home and with the mothers' and infants' pattern of behavior

together. In general, if the baby is securely attached to his mother, the reverse will also be true. Thus, the Strange Situation paradigm deals inferentially with maternal attachment in a general way. From the Strange Situation Paradigm, she discovered three basic attachment behaviors in infants and toddlers that became attachment classifications A, B, and C. The A classification was secure, where the infant or toddler does not protest a short time away from the mother, is happy to see her when she returns, and is also not alarmed when a strange person enters the room.

The B classification was insecure avoidant, where the child does not protest the mothers leaving, but upon her return actively avoids her. When the stranger enters the room, the child avoids him or her also.

The last classification discovered by Ainsworth was the C classification, insecure resistant, where the child is agitated throughout--when the mother leaves, when the mother returns, and when the stranger enters the room (Ainsworth, 1979).

Since the development of the Strange Situation, other researchers have discovered yet other classifications. A D category was discovered by Speiker and Booth (1988), where the infants were "considered anxiously attached, but neither avoidant nor resistant" (Speiker & Booth, 1988, p. 101). An A/C category was discovered by Crittenden (1988), called

compulsive compliant, where the toddler and older child maintain an intense effort "toward maintaining the semblance of bonds . . . where many severely maltreating mothers and their children do not dare challenge the durability of their relationships" (Crittenden, 1988, pp. 163-164).

Finally, Ainsworth also identified four phases of development of attachment between a mother and child, three of which take place during the first year of life. They are (1) the pre-attachment phase, when the infant attends to certain stimuli yet does not make any differentiation between stimuli, (2) the attachment-in-the-making phase, when the infant can differentiate between the familiar and the non-familiar, (3) the clear-cut attachment phase, defined by specific behaviors directed only toward the attachment figure, and (4) the goal-directed partnership phase, when the child is less egocentric, and communication and cooperation to achieve set goals are aspects of the parent-child relationship (Ainsworth et al., 1978, p. 23).

As can be seen by this sketch discussing attachment behaviors, most research exploring the concept and function of attachment has been concerned primarily with infant attachment, and secondarily with maternal attachment. However, with the pioneering work of Klaus and Kennell and their colleagues (Klaus, Jerauld, Kreger, McAlpine, Steffa, & Kennell, 1972; Klaus and Kennell, 1976), the first steps were

taken in exploring the maternal bonding process. Klaus and Kennell theorized a "maternal sensitive" period, a time shortly after birth when it was thought the time was "right" for a mother to bond to her baby if she could hold and fondle it immediately after birth.

Though this idea appears based on common sense, it was considered, and is still considered controversial. Many other studies tried to duplicate the results obtained in the Klaus and Kennell work, with varying degrees of success and failure (Svejda, Campos, & Emde, 1980; Leiderman, 1978; Carlson et al., 1979; Sluckin & Sluckin, 1978). Because of the diversity of findings in these early contact studies, it is generally felt that the early bonding idea does not take into account the dynamic, developmental nature of the relationship between the mother and the child. As Svejda states, "Maternal attachment appears to be an ongoing process and is probably not consolidated by any one experience or event" (Svejda et al., 1982, p. 88).

What these researchers and others were trying to do, it seems, was to find some definable connection between the behaviors involved in infant attachment and those involved in maternal attachment. Bowlby states this view more than once: "attachment behavior does not disappear with childhood but persists through life" (Bowlby, 1969, p.23). He again states this in 1977: "there is a strong causal relationship between

an individual's experience with his parents and his later capacity to make affectional bonds" (Bowlby, 1977, p. 32).

#### Maternal Attachment as Part of a Mutual Feedback System

Dr. T. Berry Brazelton, a pediatrician from Harvard University, became involved in the study of attachment by studying the stages of reciprocity between an infant and his primary caregiver. He came to view the dynamic as the substrate of a mutual feedback system (Brazelton, 1984, 1986) in which the primary caretaker, usually the mother, is the other necessary part. In this interactive model, there are four clear stages of infant attachment related to four clear stages of parent-infant attachment, as noted below.

#### Stages of Infant-Parent Attachment

1. In the first stage, the infant begins to achieve homeostatic control over the input and output systems.
2. In the second stage, within this controlling system, he can begin to attend to social cues to prolong his state of attention and to accept and incorporate more complex trains of messages.
3. In the third stage, within such a mutual feedback system, he and the parent begin to press the limits of (a) his capacity to take in and respond to

information, and (b) to withdraw to recover in a homeostatic system.

4. In the fourth stage, the baby is allowed to demonstrate his own sense of burgeoning autonomy and to use what he has learned in the previous stage (Brazelton, 1984). In a more recent book, Brazelton (1987) explains, arguably most clearly of all the professionals thus far, the four stages in "the parent-infant relationship, which we have come to recognize as vital to the process of attachment" (Brazelton, 1987, p. 57).

#### The Stages of Parent-Infant Attachment

The First Stage lasts from approximately ten to fourteen days. In this stage the primary caregiver teaches the baby to control his/her interfering motor and reflex behaviors so he can prolong his attention to her. She learns both the techniques in getting him to the alert state and his own messages to her that tell her he has had enough stimulation for one block of time. His facial and body language cues tell her to attain, maintain, and release his attention. Thus the first stage, like the others, is reciprocal in nature, which is the reason that is nearly impossible to discuss the stages of maternal attachment without also discussing the stages in infant attachment at the same time.

The Second Stage is usually completed in the next eight weeks (Brazelton, 1987). During this period, the mother learns how to provide a protective, nurturing "envelope" within which the baby can prolong his attention and respond to a greater degree to the mother's interaction. To keep her baby's attention for several minutes, she must learn to do several tasks: (1) she must choose the right time in his sleep/wakefulness cycle; (2) she must also learn to recognize some of his non-verbal cues; (3) she must also learn that her baby may respond too intensely to smiles and vocalizations. She must learn to modulate her voice and hold him firmly but gently.

The Third Stage starts at about the tenth week and ends in the fourth month. This is, in general, a period where the mother has the ability to prolong interaction still further, as well as heighten his attention to the degree where she can begin to teach her infant to respond to her. The baby will smile, the mother will smile back. The baby coos, the mother says "yes!" These rhythmic games are a critical learning experience for the mother and the baby both (Brazelton, 1987, p. 59).

The Fourth Stage begins in the fourth month and is evidently ongoing. This stage coincides with a baby's burst of learning about himself and his world. In this stage, the mother must learn that "he must be in control and she must

respect his newly emerging autonomy. She can no longer control him; they must share the control over these periods of attention. His burgeoning awareness of outside events makes him less available to her" (Brazelton, 1987, p. 60).

In evaluating all of these stages, it is important to realize that Brazelton also set an agenda for attachment, stating that attachment does not begin at birth, but begins at conception (Brazelton, 1981, quoted in Brundage, 1987). His agenda was based on the parent's and baby's periods of equilibrium and disequilibrium throughout the first year of the baby's life. Because this time was so vital for the mother and baby to get to know each other, Brazelton espoused the importance of a mother staying at home for at least the first four months post-partum. In a recent Newsweek article (February 13, 1989), Brazelton restates why this four-month time is important: "By four months, when the colic has ended, and when the baby and parent know how to produce smiles and to vocalize for each other, the baby feels secure enough to begin turning away to look at other adults and play with his own feet and his own toys" (Brazelton, 1989 p. 67). Though this four-month leave-taking period is, in his opinion, critical, he is also aware of the possible financial hardship that such an absence would cause (Brazelton, 1989, p. 68).

Brazelton depicts a vital point, overlooked in some past and present research on attachment, that it may not be solely infant temperament, maternal temperament, economic circumstance, multiple role function of the mother that mitigate for secure attachment (Sroufe, 1985; Speiker & Booth, 1988; Crittenden, 1988; Crittenden & Bonvillian, 1984), but the amount of quality time may determine the amount of quality attachment produced reciprocally between mother and infant.

It is also obvious that quality time can be cut short by the financial or psychosocial necessity of the mother's return to work.

#### Maternal Attachment and Employment

According to recent research, one of the difficulties that interfere with a solid attachment between a mother and her infant is in her returning to the workplace (Bargelow, Vaughan, & Molitor, 1987; Schwartz, 1983; Brazelton, 1985; Chase-Lansdale & Owen, 1988). The reasons given vary according to the work cited: some studies state that it is not the work per se, but the role satisfaction or dissatisfaction that accompanies the work that makes the difference between a well-adjusted, well-attached mother and a dissatisfied, insecurely attached one (Lerner & Galambos, 1985). Some studies indicated that it is not role dissatisfaction at all, but role conflict--the "wearing too many hats" syndrome that

causes attachment difficulties (Warr & Parry, 1982). Still other studies indicate it is neither role conflict, role satisfaction or dissatisfaction but the number of hours worked (Burr, 1973).

In a more recent study (Owen & Cox, 1988), it was found that the underlying effect described by working mothers that directly related to their difficulties in attachment was maternal anxiety. The study compared attachment classifications between working, part-time and non-working mothers and found that twice as many babies of working mothers showed an insecure-avoidant attachment classification (Ainsworth, 1978) as did non-working mothers. The reason the authors gave was the fact that anxiety played so large a role in the work and home experience of the mother. This study was seminal in that it examined an attitude about work and not an aspects of the work itself. The study concludes, "maternal employment was related to the mothers' anxiety, which, in turn, was related negatively to qualities of parenting and security of attachment" (Owen & Cox, 1988, p. 111).

The study completed for this thesis is in the same conceptual range as the Owen and Cox study in that it seeks to understand how attitudes and perceptions of working women impact on the maternal/infant bond. However, unlike the others, it seeks to discover if attitudes and perceptions ranging over a variety of issues change over a period of nine

months, and if they do, if and how such change affects maternal attachment behaviors.

#### Summary

This chapter sought to review some of the major theoretical implications and explications dealing with infant/maternal and maternal/infant attachment perspectives. These perspectives included the precursor and criterial attachment behaviors of John Bowlby (1968, 1982) and Mary Ainsworth (1978). It also discussed the classifications, both old and new, found in Ainsworth's Strange Situation Paradigm (Ainsworth, 1979; Speiker & Booth, 1988; Crittenden, 1988). Finally, it reviewed Brazelton's concept of maternal attachment as being part of a mutual feedback system, and the stages therein. The element of time is, according to Brazelton, necessary in forming strong bonds between a mother and infant, and it is the lack of necessary time that made the study of maternal attachment and maternal employment so necessary.

## CHAPTER 3

## METHODS AND PROCEDURES

The objective of this study was to investigate whether employment between four and six weeks postpartum affects behaviors involved in maternal attachment over nine months time, postpartum. The investigation focused on the measurement of many variables through the use of the following measures: the Tennessee Self-Concept Scale (Fitts, 1965), the Feetham Family Functioning Survey (Feetham & Humenick, 1982), the Norbeck Social Support Questionnaire (Norbeck, Lindsey, & Carrieri, 1983), and the Sarason Life Events Survey (Sarason, Johnson, & Siegel, 1978). These measures were given during one to six weeks postpartum, the first administration; twelve to fourteen weeks postpartum, the second administration; twenty four to twenty six weeks postpartum, the third administration; and thirty six to thirty eight weeks postpartum, the fourth administration. Two other inventories were used in the study: the Motherhood Experience Inventory (Kime & Tsaguris, 1988a) and the Inventory of Maternal Perception (Kime & Tsaguris, 1988b). The former was used on the first group of eight mothers during the second, third, and fourth administration of the larger instruments, and on the second set of seven mothers the

first, second, third, and fourth administration of the larger instruments. The latter instrument, the Inventory of Maternal Perception, was given with the larger instruments on the fourth administration only.

The study also consisted of videotaping four feeding interactions between the mother and her baby, then rating the interaction on the NCAFS feeding scale (Barnard, 1979). As this is an experimental/pilot study, using a limited number (N = 15) of self-selected subjects, there was no control group.

The subjects, selection of the subjects, research on human subjects, assessment instruments, testing procedures, timeline for subject involvement, timeline for test taking procedures, and data analysis techniques are all discussed in the pages to follow.

### Subjects

Using purposive sampling, a non-probability sampling method (Dempsey & Dempsey, 1986), the subjects consisted of fifteen infant-mother dyads selected from various sources, including candidates from the Tucson La Leche League, the Thomas-Davis Childbirth Centers, the CIGNA Wellness Center, and the University of Arizona staff newspaper, Lo Que Pasa. Criteria for inclusion into the study was that the mother return to work between four and twelve weeks postpartum. Full-time work was preferred to part-time; mothers who must

return to work rather than simply wanting to was preferable as well. A letter of introduction (Appendix A), after the first phone call, indicated the intent of the study.

A financial incentive (\$10.00) per completion of the each of the four questionnaires was also provided to subjects. If they consented to be part of the study, they signed a Subject Consent Form (Appendix B) provided in the letter of introduction. The subjects were selected from the city of Tucson, Arizona. Demographic data were also collected on mother-infant dyads during the course of structured and non-structured interviews (Dempsey & Dempsey, 1986) by the researcher. Information obtained included mother's age, educational level, marital composition, number of previous children, experience of caretaking children previous to this birth, and how many days postpartum the mother planned to return to work.

#### Selection of Subjects

Fifteen mother-infant dyads were selected for participation in this study on the basis of their intent to go back to work between one and three months after the birth of their baby. This study focused on the assumption that returning to work would have an effect on maternal attachment between one and nine months postpartum.

### Assessment Instruments

This exploratory/pilot study (Parse, Coyne, & Smith, 1985; Dempsey & Dempsey, 1986) examined the behaviors and attitudes of fifteen working mother-infant dyads on postpartal maternal attachment over nine months' time. They were then observed and videotaped in their homes at approximately one month, plus or minus two weeks; three months plus or minus two weeks; six months plus or minus two weeks; and nine months plus or minus two weeks.

#### Nursing Child Assessment Feeding Scale

The Nursing Child Assessment Feeding Scale (Barnard, 1978) was used to measure caregiver behaviors that are generally believed to be associated with maternal attachment. They included maternal sensitivity to infant cues, alleviating distress, and providing growth-fostering situations during the feeding. The scales also measured a child's response to clear maternal cues, measured a child's responsiveness to the mother during the feeding, and identified the roles and responsibilities of mother and child in feeding interaction (Barnard, 1978; Brundage, 1987). The NCAFS was an observational tool that measures the degree of reciprocity in a parent-child feeding interaction during the first year of life. It consisted of seventy-six behavioral items to observe during a typical feeding interaction. The rating scales are binary: a low score indicated an attachment

problem; a high score indicated that attachment between a mother and her infant is secure. Videotapes were done on the mother-infant dyads during a typical feeding interaction, then scored on the NCAFS scales by this researcher. The NCAFS was chosen as the instrument to measure maternal attachment because of its repeated use in infant-parent studies, and is considered state-of-the-art for measuring infant-parent attachment (Brundage, 1987).

To insure interrater reliability, this researcher was trained by a certified NCAST (Nursing Child Assessment Satellite Training) instructor during the summer of 1987. NCAST instructors were trained by Dr. Kathryn Barnard and associates, who created the NCAFS Scale.

#### Sarason Life Experiences Survey

The Life Experiences Survey (LES) (Sarason, 1978) is a fifty-seven item self-report measure that names events and allows respondents to indicate their reactions to those events over the past year. Events were chosen to represent life changes frequently experienced by the general public. Respondents were asked to indicate those events, from a list of events, experienced over the past year, and (1) whether they believed those events were positive or negative, and (2) how they experienced the impact of those events. Ratings are on a seven point scale, ranging from extremely negative (-3)

to extremely positive (+3). Pearson product-moment correlations were computed for the positive change score, over the period of nine months and the four administrations of the test.

#### Tennessee Self-Concept Scale

The Tennessee Self Concept Scale (TSCS) is one consisting of 100 self-description items, ninety assessing self-concept in its various facets, and ten assessing self-criticism. For each item, the respondent chooses one of five response options ranging from "Completely False" to "Completely True." Items for the scale were written according to a type of two-dimensional facet design involving the following aspects of the self: Identity, Self-satisfaction, Behavior, Physical-self, Moral-ethical self, Personal self, Family self, and Social self. In this particular study, as in another (Brundage, 1987), the total positive score reflects the overall self esteem measure, and was the score of choice to use. The TSCS was taken four times over a nine-month period. The total positive score of the TSCS was then correlated with the NCAFS Scales to determine if self concept was correlated with maternal attachment, in either the first, third, sixth, or ninth month postpartum.

### Feetham Family Function Index

The Feetham Family Function Index (FFI) (Feetham & Humenick, 1982) is a twenty-three assessment questionnaire that assesses the following areas of family functioning: household tasks, child care, sexual and marital relations, interactions between friends, family and children, involvement in the community, and emotional support from the spouse. Questions are answered using a seven point Likert Scale. The respondent is asked to rate "what is" and "what should be." The discrepancy between the two ratings along with the degree of importance the respondent places on the it contributes to assessment of family functioning in three major areas: the area of co-relation between the family and the broader social units, the area of co-relation between the family and sub-systems, and the area of co-relation between the family and the individual. These three areas of family functioning were cited by McIntyre (1966) and serve as a foundation from which the Feetham Family Function Index was developed (Brundage, 1987). The FFI was taken four times--during the first, third, sixth and ninth month--to determine if there was any change in the family and its related systems. It was then correlated each of the four times it was taken with the NCAFS scales, also scored four times, to determine if there was any correlation between the scores on the FFI and the NCAFS

scales. This result would infer there to be a relationship between Family Functioning and maternal attachment.

Norbeck Social Support  
Questionnaire

The Norbeck Social Support Questionnaire (Norbeck, Lindsey, & Carrieri, 1981, 1983) is a self-report questionnaire designed to measure the many dimensions of social support. This instrument was used because it has been used to determine the degree of maternal attachment in two other studies (Brundage, 1987; Capuzzi, 1986).

Motherhood Experience Inventory  
(Kime & Tsaguris, 1988a)

This pilot instrument was used to assess the impact of returning to work on a mother's identity separate from her new role as a parent, and how the stress of returning to the workplace may affect three basic areas of functioning (Greenberg, 1986): the affective, the physical, and the cognitive domains as they relate to maternal attachment (Barnard, 1978; Brazelton, 1986).

Inventory of Maternal Perception  
(Kime & Tsaguris, 1988b)

This instrument was constructed to predict constructive and problem behaviors based on the subjective responses to the questionnaire, and to determine maternal perception (or misperception) of the infant and the context based on the

four areas of personal "unknowing" (Mahoney, 1988, quoted in Belsky et al., 1988). Those areas were (1) power, (2) value, (3) reality, and (4) identity. To the extent that the mothers' perceptions distort her notions of power, value, identity and reality, she will not attach well to her infant (Nezworski, Tolan, & Belsky, 1988).

The operational definitions of the abovementioned areas are:

1. Power: How well or ill the mother is in control of situations that cause her stress and anxiety.
2. Value: Perceived goodness or badness of a situation.
3. Identity: Self-knowledge of basic nature or personality.
4. Reality: Perceived environmental orderliness and consistency.

#### Research Design

This exploratory/pilot study (Parse, Coyne, & Smith, 1986; Dempsey & Dempsey, 1987) assessed the behaviors and perceptions involved in the process of maternal attachment and working mothers. Advertisements were placed in local newspapers and in La Leche League publications advertising for working mothers who wish to participate in an exploratory study of maternal attachment. The Thomas-Davis Childbirth Centers and CIGNA also approved of this study, and subjects were obtained through those agencies as well. After an

initial phone interview, a letter of introduction (Appendix A) and a subject consent form (Appendix B) were sent to potential subjects. After this, the researcher made an appointment to go to their homes, where arrangements were then made to videotape a feeding interaction between mother and baby. After videotaping, the researcher conducted the first standard interview and left the first packet of instrumentation (Appendix C), with a self-addressed stamped envelope inside. Instructions were for subjects to fill out the packet as soon as possible and send it back to the researcher. As there were fifteen subjects, videotaped four times over the course of nine months, there should have been sixty instrument packages completed at the end of the study, as well as sixty NCAFS scales completed and fifteen videotapes of the four sessions. Due to the personal issues of the respondents (moving, work problems, etc.), 56 packets were received of the large test packets, that included the Tennessee Self Concept Scale, the Feetham Family Functioning Survey, the Norbeck Social Support Questionnaire, and the Sarason Life Events Survey. In addition, the Motherhood Experience Inventories were given during the first, third, sixth and ninth months as well. However, sixty videotapings took places, plus sixty NCAFS scales were scored, 54 of the MEI's were finished, and fifteen IMPs were finished as well.

The Inventory of Maternal Perception was taken once, at during the ninth month.

After the coding of the instrumentation took place, statistical procedures then occurred. A time line (Appendix D) will show the spacing and designation of instrumentation from September 1987 to February 1989.

#### Analysis of Data

Descriptive and inferential statistics and parametric and non-parametric statistical tests were used on the data gathered on the TSCS, the FFFI, the NSSQ, and SLES, the MEI, and the IMP. Results of the tests were analyzed through the use of Pearson  $r$  correlations and correlation matrices were designed from them. The Pearson  $r$  was used as it allows us to use scores from the whole sample ( $n = 15$ ), inferring relationship strength. Also, for the TSCS, the NSSQ, the SLES, the MEI and the FFI, diagonal correlations will be observed, as they were pairs of scores derived at the same time; and adjustment of life circumstance may be cautiously inferred from changing numerical relationships.

Finally, the on average percent of variance will be calculated to determine how much of the criterion variable is attributable to the derived variable in each case.

## CHAPTER 4

### RESULTS

#### Introduction

The purpose of this study was to investigate maternal attachment as it related to the working mother. The study was an exploratory effort to investigate whether employment outside the home had an effect on maternal attachment, as measured by the NCAFS scale, inside the home. Information was gathered with demographic profiles of the subjects, standard questionnaires, two new self-report inventories and an observational tool, all completed in the home of the subjects. Findings that emerged from the methods and procedures, described in Chapter 3, are presented in this chapter.

#### Descriptive Results

##### Profile of the Sample

The variables of maternal age, educational level, marital status, job description, number of previous children, experience with child care, number of days before returning to employment, and type of employment, were analyzed to give a description of maternal characteristics.

A total of fifteen subjects, all Caucasian, participated in the study. All were employed before the birth of their babies, and all were going back to work after their babies' birth. The age of mothers ranged from nineteen to thirty-five, with a mean age of 28.5. The educational level for the sample was as follows: 75% had college degrees, 25% had high school or high school equivalency degrees. 73.3% had white collar, professional careers, 20% were pediatric nurses, and 6.7% were blue collar workers.

Of the mothers ( $n = 15$ ) in this sample, 53.3% had no children previous to the birth of this child, 13.3% had two children previously, and 33.3% had one child previously.

86.7% of mothers in this study were married, 13.3% were single parents. 6.7% became a single parent during the course of this study.

Finally, 6.7% ( $n = 1$ ) had a child through the process of artificial insemination, and 20% had infants who had died previous (from two to five years) to the birth of this one. Such experiences as these may be considered confounding variables (Kachigan, 1982, p. 213) in the resultant analyses. A strong note of caution in data interpretation is extended here.

### Results

Before the results are presented, it must be stated that due to the small  $n$  ( $n = 15$ ), reliability for measures

employed in the statistical analyses below could not be calculated with any degree of certainty.

All research questions and hypotheses were tested using the Pearson Product-Moment Correlation coefficient, as it is one that allows us to use data that were gathered from the whole sample, inferring relationship strength that may or may not exist.

#### Problem 1

The first problem posited by this study was, "To what extent does a mothers' returning to work between one and three months postpartum correlate with scores on the Nursing Child Assessment Feeding Scale, a measure of maternal attachment?"

To address this question, the Pearson  $r$  was calculated between postpartum days to employment, or the time measured in days--rounded to 30-45-60-90 days--before returning to work, and the NCAF scale for each measurement occasion. The NCAF Scales (Barnard, 1978) were scored during the first month, third month, sixth month, and the ninth month, in each case plus or minus two weeks.

Table 1 reflects correlations found between Post Partum days to employment (PPE) and the results of each of the four measurement occasions of the NCAF scales.

Table 1. Pearson correlation coefficients depicting the relationship between postpartum days to employment and maternal attachment.

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	NCAF1	NCAF2	NCAF3	NCAF4
PPE	-.4450*	.1735	-.0359	-.9668*

---

\* Indicates statistical significance;  $p < .05$ .

The r's were then squared to derive how much of the criterion variable (maternal attachment) was attributable to the derived variable (PPE days). Results are summarized below:

<u>Coefficient</u>	<u>Squared</u>
r = -.45	19.8%
r = .17	3.0%
r = .04	.1%
r = -.97	93.5%

As can be seen, the first and fourth measurement occasion yielded statistically significant correlations at the  $p < .05$  level.

It can also be seen that during the second and third measurement occasions there were no significant correlations.

In addition, the first and fourth assessments yielded negative correlations, meaning that low scores on the NCAF scales are related to when women return to work within thirty days after the birth of their babies; the relationship is notably stronger at the 90 day mark.

Summary of Problem and Hypothesis 1. Consequently, the answer to the first research question--to what extent does a mothers' returning to work between one and three months post partum correlate with scores on the NCAF scale as a measure of maternal attachment, is that there is a significant negative correlation between maternal attachment behaviors as

measured on the NCAF scale if a mother returns to work 30 days after the birth of her baby, and another significant negative correlation between maternal attachment behaviors as measured on the NCAF scale if the mother returns to work 90 days after the birth of her baby. Thus, the answer to the first hypothesis of this study--"A mother's returning to work between one and three months postpartum affects her maternal attachment behavior"--is yes, in a negative fashion.

Speculation as to possible reasons, as well as analyses as to why the forty-five and sixty-day marks show nonsignificant correlations, either positive or negative, will be pursued in Chapter 5.

## Problem 2

Which familial and environmental factors--social support, life events, family functioning, self-concept, and maternal subjective--experience are correlated with maternal attachment as measured by the NCAF Scales?

Social Support. The term social support was defined as those people who are important in the life of the individual (in this case, the mother) who is taking the questionnaire. There are twenty-two spaces for important people, or the social support network, in the Norbeck Social Support Questionnaire. Instructions in the NSSQ state, however, "You do not have to use all 22 spaces. Use as many spaces as you have important persons in your life." The NSSQ was taken

four times: at the first, third, sixth, and ninth month postpartum. Because the researcher wanted to determine the strength of the social support network over time, scoring of the NSSQ dealt with the numerical variability found in the social support network over the four times the test was taken. The scores on the NSSQ were then correlated with the NCAF scale, measuring maternal attachment. Pearson Correlation coefficients were calculated to discover if there were significant correlations between the social support of the mother over nine months' time and her maternal attachment behaviors, as measured on the NCAF scale. The results are depicted in Table 2.

As can be seen from this table, four of the sixteen correlations between social support and maternal attachment were negatively correlated and statistically significant at the .05 level. Those correlations have asterisks (\*).

Correlations on the diagonal must also be considered because those correlations are acquired from pairs of scores derived at the same time; and change of behavior and/or attitude may be cautiously inferred from changing relationships. Diagonal correlations run from  $-.47$  (1) to  $.32$  (2) to  $.05$  (3) to  $.44$ (4), or from negative to positive in a rather consistent way, determining, if not a significant relationship, then, at least a trend.

Table 2. Pearson correlation coefficients depicting the relationship between social support as measured by the Norbeck Social Support Questionnaire and maternal attachment as measured by the NCAF scale.

	NCAF-1	NCAF-2	NCAF-3	NCAF-4
	1 mo.	3 mo.	6 mo.	9 mo.
Social Support				
1.	-.47*	-.50*	-.11	-.08
2.	.22	.32	.26	.09
3.	.07	.18	.05	.38
4.	-.89*	-.86*	.18	.44

\* Indicates statistical significance;  $p < .05$ .

Finally, to derive the percent of variance between the criterion variable (maternal attachment) and derived variable (social support), the correlations on the diagonal are squared, then added and divided by four. This, on average percentage, will allow us to see how much of the criterion variable is attributable to the derived variable. When this procedure was accomplished, it was determined that on average, the derived variable, social support as measured by the Norbeck Social Support Questionnaire, accounts for 13% of the variance on the criterion measure--maternal attachment.

Further discussion on the implications and inferences from these data will occur in Chapter 5.

Life Events. To determine whether life events impacted on maternal attachment, scores derived from the Sarason Life Experience Survey were correlated with the NCAF scales by using the Pearson  $r$ , once again.

The format for the Life Experience survey calls for subject to rate separately the desirability and impact of the events they have experienced over the past year and whether they have viewed the event as positive or negative, as well as their perceived impact of the event on their lives at the time of the occurrence.

The scores were then correlated with each of the four times the NCAFS was given. Results are depicted in Table 3.

Table 3. Pearson  $r$  is depicting the relationship between life experiences and maternal attachment.

	NCAF Scales			
	1 mo.	3 mo.	6 mo.	9 mo.
LES				
1 .	.05	-.36	-.38	-.54*
2.	-.28	-.05	-.12	-.45
3.	.06	.21	.35	-.07
4.	.82*	-.55*	.37	-.37

\* Indicates statistical significance,  $p < .05$ .

As shown in Table 3, three out of sixteen correlations were statistically significant: two negative correlations (-.54, -.55) and one positive (.82). On the diagonal, the resulting correlations ran from .05 to -.05 to .35 to -.37. To derive the on-average percent of variance between the criterion variable (maternal attachment as measured on the NCAF Scale) and the derived variable (the impact of life events, as measured on the Sarason Life Events Survey), correlations on the diagonal were squared, then added and divided by four. On average, the Sarason Life Events Survey showed 07% variability with maternal attachment, as measured by the NCAF scale.

Inferences and resultant discussion concerning these correlations will be discussed in Chapter 5.

Self Concept. To determine whether self concept, as globally measured by the Tennessee Self Concept Scale, has an effect on maternal attachment, as measured by the NCAF scale. Correlations were derived from sets of scores obtained on the four administrations of both the Tennessee Self-Concept scale and the NCAF scales. To simplify the scoring procedures inherent in the Tennessee Self-Concept scale, the researcher did not score the subscales involving the five "selves." The researcher was solely interested in positive self concept, that is, how well or ill the person--in this case the mother--feels about herself during the first, third, sixth and

Table 4. Pearson correlations depicting the relationship between self concept and maternal attachment.

	NCAF			
	1 mo.	3 mo.	6 mo.	9 mo.
TSCS				
1.	.21	.22	-.03	.07
2.	.08	.10	.21	.09
3.	.15	.15	.10	.22
4.	.29	.37	.47	.10

ninth month postpartum. Table 4 shows the correlations depicting the relationship between self concept, as measured by the Tennessee Self Concept Scale, and maternal attachment, as measured by the NCAF scales.

As can be seen by the correlations in Table 4, there are no significant negative or positive correlations between self concept, as measured on the Tennessee Self Concept scale and maternal attachment, as measured by the NCAF scale. The diagonal correlations were .21, .10., .10, and .10, respectively.

To derive the percent of variance between the criterion variable and the derived variable, diagonal correlations were squared, then added and divided by four. On average, the Tennessee Self Concept Scale yielded .04% of variability with the criterion.

Further discussion concerning these findings will occur in Chapter 5.

Family Functioning. To determine whether Family Functioning, as measured by the Family Function Index (FFI, Feetham & Humenick, 1982), is correlated with maternal attachment, as measured on the NCAF's scales (Barnard, 1978), Pearson correlations were derived from sets of scores obtained on the four administrations of the Family Function Index and the four measurement occasions of the NCAF scales. Family function involves the following areas of family

functioning: household tasks, child care, sexual and marital relations, interaction between family and friends, interaction with children, community involvement, and sources of emotional support. The format for the FFI survey is based on a Likert scale where the respondent is asked to rate "what is" and "what there should be." The discrepancy between these two ratings, with the degree of importance the respondent places on each item, contributes to the assessment of family functioning (Brundage, 1987, p. 85.). Table 5 depicts the relation between Family Function, as measured by the Family Function Index, and maternal attachment, as measured by the NCAF scale (Barnard, 1978).

As can be seen from Table 5, two of sixteen correlations between family function and maternal attachment were shown to be statistically significant at the  $p < .05$  level. The diagonal correlations went from  $-.02$ ,  $-.08$ ,  $.01$ , to  $.50$ , respectively, showing a movement from negative to positive, indicating a trend. Using the process stated before to determine the percent of variance between the criterion and derived variable was also calculated. On average, the derived variable (family function) accounts for  $.063\%$  of variance on the criterion measure.

Inferences and discussion concerning these results will be discussed in Chapter 5.

Table 5. Relationship between family function, as measured by the Feetham Family Function Index and maternal attachment, as measured by the NCAF scales.

	NCAF			
	1 mo.	3 mo.	6 mo.	9 mo.
FFI				
1.	-.02	-.31	-.64*	-.07
2.	.19	-.08	-.38	-.16
3.	.16	-.17	.01	.25
4.	.24	-.06	.17	.50*

\* Indicates statistical significance,  $p < .05$ .

Maternal Subjective Experience. To determine whether maternal subjective experience in the realms of the affective, somatic and physical, as measured on the Motherhood Experience Inventory (Kime & Tsaguris, 1988a) is correlated with maternal attachment, as measured on the NCAF scale (Barnard, 1978). To determine whether maternal subjective experience in three previously described areas correlated with maternal attachment, as measured by the NCAF scales, Pearson correlations were derived from sets of scores obtained on the four administrations of the Motherhood Experience Inventory (Kime & Tsaguris, 1988a) and the four measurement occasions of the NCAF Scales (Barnard, 1978). Table 6 depicts Pearson Correlation Coefficients, showing the relationship between maternal subjective experience and maternal attachment.

As can be seen from Table 6, only one significant (at the  $p < 0.5$  level) emerged from the analysis. It is .57 at the ninth month of the measuring the NCAF scale, and the fourth taking of the Motherhood Experience Inventory. Correlations on the diagonal went from negative to positive over time. They are: -.23, .01, .16 to .57. On average, maternal subjective experience, as measured by the Motherhood Experience Inventory, showed 10% of the variance with the criterion measure.

Table 6. Relationship between maternal attachment, as measured by the NCAF scales, and maternal subjective experience, as measured by the Motherhood Experience Inventory.

	NCAF			
	1 mo.	3 mo.	6 mo.	9 mo.
Motherhood experience				
1.	-.23	.19	-.42	-.22
2.	-.14	.01	.12	-.12
3.	-.08	.32	.16	.11
4.	-.24	.30	.00	.57*

\* Indicates statistical significance,  $p < .05$ .

Inferences and discussion concerning these correlations will be discussed in Chapter 5.

What will be discussed here, however, are cautionary answers to the second research problem: Which factors-- (1) social support, (2) life experiences, (3) family support networks, (4) self concept, and (5) maternal subjective experience--are related to maternal attachment?

To answer this question, the percentages of variability will be used, derived from squaring the correlations found on each of the diagonals of the correlation matrices, then squaring, adding, and dividing them by four. Table 7 will depict the results.

Consequently, the strength of social support, the impact of life events, how well the family functions, and the subject experience of the mother are those factors (of the ones tested) most related to maternal attachment as measured by the NCAF scale.

Summary of Problem and Hypothesis 2. "Certain familial and environmental factors social support, life events, self concept, family functioning and maternal subjective experience are related to maternal attachment. "To answer this question, the results of the NCAF scales, taken on four measurement occasions, were correlated with results of four measurement occasions in each of the following instruments: The Norbeck Social Support

Table 7. Average squared correlations for each test instrument, showing the relation of the criterion variable (maternal attachment, as measured by the NCAF scale) to the derived variable (social support, life events, family function, self concept, motherhood experience).

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Social Support as measured by:	
Norbeck Social Support Questionnaire	12%
Life Events as measured by	
Sarason Life Events Survey	07%
Self Concept as measured by	
Tennessee Self Concept Scale	.04%
Family Function as measured by	
Feetham Family Function Index	.06%
Maternal subjective experience as measured by	
Motherhood Experience Inventory	10%

---

Questionnaire (NSSQ), the Sarason Life Events Survey (SLES), the Motherhood Experience Inventory (MEI), the Tennessee Self-Concept Scale (TSCS), and the Feetham Family Function Index (FFFI). The higher percentages of the average squared correlations determined the strength of relationship between the criterion and the derived variable. On that determination of relationship strength, the question has been answered.

Concomitantly, the answer to Hypothesis 2 is, certain familiar and environmental factors are related to maternal attachment. Those most related are: the strength of social support, the impact of life events, and how well the family functions.

Further discussion of research question 2, and hypothesis 2 occurs in Chapter 5.

### Problem 3

Which areas of maternal perception, given the four identified areas of misperception in the general population--value, identity, reality, and power (Mahoney, 1988)--will correlate with maternal attachment, as measured by the NCAF scales?

To answer this question, the Inventory of Maternal Perception was created to investigate maternal perception in the four key areas of general misperceptions (Mahoney, 1988): power, identity, value, and reality. It was also created to

predict constructive and at-risk perceptions based on the subjective responses to the questionnaire. Analysis for this question is summarized in Table 8.

As shown in Table 8, two significant correlations emerged at the  $p < .05$  level. They are  $-.49$  (reality) and  $.61$  (power), respectively. As the IMP was only given once (9th month), a longitudinal interpretation cannot be instituted to infer change over time. What can be shown is, again, the degree of variance between the criterion variable (maternal attachment as measured by the NCAF scale) and the derived variable (maternal perception as it relates to value, identity, power, and reality as measured by the Inventory of Maternal Perception).

Summary of Problem and Hypothesis 3. We are able to determine the degree of variance by squaring the correlations on the horizontal, and not on the diagonal. Table 9 depicts the results.

Given the results in Tables 8 and 9, the tentative answer to the research question 3: Which areas of maternal perception, given the four identified areas of misperception in the general population--value, identity, reality and power (Mahoney, 1988)--will correlate with maternal attachment?--is in the realms of power, and reality. The concomitant answer to hypothesis 3 is: it is assumed that one or more areas of misperception in the general population will be shared by

Table 8. Correlations that emerged between the Inventory of Maternal Perception (Kime & Tsaguris, 1988b) and maternal attachment, as measured by the NCAF scale (Barnard, 1978).

	NCAF1	NCAF2	NCAF3	NCAF4
IMP:				
Table 8-Real:	-.49*	-.28	.16	-.06
Power:	.35	.16	.11	.61*
Value:	.01	.17	-.23	.08
Ident:	-.06	.43	.06	.07

\* Indicates statistical significance  $p < .05$ .

Table 9. Average squared correlations between maternal attachment, as measured by the NCAF scale (Barnard, 1978) and the Inventory of Maternal Perception (Kime & Tsaguris, 1988b).

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Reality	.09%
Power	13%
Value	.09%
Identity	.05%

---

this sample of working mothers. Given the results of Tables 8 and 9, the realms of misperception shared are in the areas of power and reality.

#### Problem 4

Will experiential and cognitive aspects of maternal attachment--maternal subjective experience, and maternal perception (as measured by the Inventory of Maternal Perception and The Motherhood Experience Inventory) correlate with the NCAF scales, a measure of maternal attachment?

To answer this question, the researcher observed the correlations derived from the NCAF scale being correlated with the Motherhood Experience Inventory and the Inventory of Maternal Perception. It was found that, given the high number of weak and negative correlations on both matrices (33 out of 34 correlations), that neither the MEI nor the IMP correlated very highly with the NCAF Scale.

Summary of Problem and Hypothesis 4. Because of the possibility that measurement of behavior involved in maternal attachment, as measured by the MEI and IMP not be significantly correlated with the measurement of maternal attachment behaviors as measured on the NCAF Scales, there may be a need to create different definitions and different measures of maternal attachment in more diverse populations.

Table 10. Summary of the study problems, hypotheses, and acceptance or rejection of said hypotheses.

Problem	Hypothesis	Supported
<p>1. To what extent does a mothers' returning to work between one and three months postpartum correlate with scores on the Nursing Child Assessment Feeding Scale?</p>	<p>A mother's returning to work between one and three months' postpartum affects her maternal attachment behavior.</p>	Yes
<p>2. Which familial and environmental factors --social support, life events, family functioning, self concept, and maternal subjective experience are related to maternal attachment as measured by the NCAF scales (Barnard, 1978)?</p>	<p>Certain familial and environmental factors are related to maternal attachment. Those most related are: the strength of social support, the impact of life events, and how well the family functions.</p>	Yes
<p>3. Which areas of maternal perception, given the four identified areas of misperception in the general population, will correlate with maternal attachment, as measured by the NCAF Scales (Barnard, 1978)?</p>	<p>It is assumed that one or more areas of misperception in the general population will be shared by working mothers. They are in the realms of power and reality.</p>	Yes

Table 10--Continued

Problem	Hypothesis	Supported
4. Will aspects of maternal attachment --maternal subjective experience and maternal perception --as measured by the Inventory Maternal Perception and the Motherhood Experience Inventory, correlate with the NCAF scales, a popular measure of maternal attachment?	The Motherhood Experience Inventory and the Inventory of Maternal Perception may have negative or weak correlations with the NCAF scales, thus inferring a need for a more global definition and instrumentation in the measurement of maternal attachment.	Yes

Given the number of negative and weak correlations found in the above-mentioned matrices, the hypothesis is accepted..

#### Summary

This chapter presented the quantitative results of the study, including descriptive results of the major variables and analytic results of the research questions and hypotheses. It was found that low attachment scores on the NCAF scale could be predicted if mothers went back to work within the first month postpartum, and in the fourth month postpartum. It was also found that social support networks and the impact of life events had the greatest relationship with maternal attachment. Self concept, according to measurement outcome, had no correlation at all with maternal attachment. Additionally, the realm of power was possible difficulties associated with it, impacted most on maternal attachment. It was also learned that though the NCAF scale, the Inventory of Maternal Perception and the Motherhood Experience Inventory all purportedly measured aspects of attachment, they had very weak and low correlations with each other.

## CHAPTER 5

### SUMMARY, DISCUSSION AND RECOMMENDATIONS

This chapter presents a discussion of the results as they relate to the study problems and hypotheses. The chapter begins with a review of the purpose of the study, the problems, the hypotheses, and the findings. Results are then discussed in more detail than in Chapter 4, citing possible reasons based on clinical observation of the subjects. The chapter concludes with thoughts on the strengths and limitations of the study, implications for social policy, and suggestions for additional research.

#### Introduction

The purpose of this study was to investigate the psychology of the working mother and discover if returning to work between one and three months postpartum had an effect on maternal attachment behaviors over nine months postpartum. Six derived variables--self concept, family function, the impact of negative and positive life events, social support, maternal perception, and maternal subjective experience--were also examined to determine their relationship to maternal attachment, as measured by the Nursing Child Assessment Feeding Scale (Barnard, 1978).

Information obtained from these instruments was essential to understanding the dynamism of the attachment trajectory, and to rule out intervening variables that had heretofore been considered essential to secure maternal attachment. Information gathered in this study may also be useful in establishing a hierarchy of needs-to-be-met so that the working mother may return to work with less stress and sense of loss.

The design for this study combined the pilot, longitudinal, and the exploratory. It studied fifteen infant-mother dyads over nine months time, using the Nursing Child Assessment Feeding Scale (Barnard, 1978) to measure maternal attachment. Measures of maternal attachment were taken at one, three, six, and nine months, all plus or minus two weeks. The independent variables of self concept, family function, the impact of negative or positive life events, and social support were all measured between one, three, six, and nine months, plus or minus two weeks. The Motherhood Experience Inventory was administered with the first group of seven mothers in the third, sixth and ninth months, and with the second set of eight mothers in the first, third, sixth, and ninth months. The Inventory of Maternal Perception was measured at the ninth month only.

Three study problems and their concomitant hypotheses were advanced regarding the concept of maternal attachment as

it applied to working mothers, and how maternal attachment, as measured by the NCAF scale (Barnard, 1978) may not be useful to the trajectories of working mothers. Table 11 summarizes the study problems, concomitant hypotheses, and acceptance or rejection of said hypotheses.

### Discussion

#### Hypothesis 1

It was hypothesized that a mother's returning to employment during between the first and third month postpartum affects maternal attachment as measured by the NCAF scales.

Findings. It was found that during the first and fourth measurement occasion, significant negative correlations were discovered. Low scores on the NCAF scales were related to the first month (30 days postpartum days to employment) and the third month (postpartum days to employment).

Clinical Observations and Interpretations. Returning to the workplace, whether it be in the first or in the third month postpartum, predicts low attachment scores on the NCAF scales.

Reasons for this finding remain unclear but ideas abound. Three mothers in this study returned to work at the thirty-day mark. In each case, this child was their first. These women appeared tense and anxious with their babies, all

preferring to talk about other things to the researcher than to interact with their babies.

The women appeared as if the previous nine months of carrying the baby was difficult enough: now the baby had arrived and they wanted to do "adult" things--talk to the researcher, watch TV, discuss news events, have friends over. The three mothers who returned to work at the 30-day mark were ages 18, 23, and 28.

Those mothers who returned to work at the 3-month mark (90 days) had the lowest correlation with maternal attachment:  $-.9668$  ( $p < .05$ ). Reasons for this outcome might be that (1) the mothers was exhausted from child care responsibilities and were looking forward to returning to work. With this in mind, they may have been diverging, or disattaching from their infants to some degree so the infant and mother might have an easier time when at daycare and in the workplace when the mother returned to work. (2) Another view is that the mother may be feeling the combination of stress and an impending sense of loss over returning to work so that naturally reciprocal attachment behaviors are negatively affected.

Questions remain as to why at the six-week and eight-week mark there were no significant correlations at all.

## Discussion

### Hypothesis 2

It was hypothesized that there were certain familial and environmental factors that bore a relationship to maternal attachment, inferring that there were certain aspects of the maternal environment that would aid in the secure creation and functioning of maternal attachment.

Findings. It was found that the strength of social support, perceived subjective experience (in the somatic, physical and affective areas) and the impact and perceived importance of life events were the major social factors that impacted on maternal attachment, as measured by the NCAF scales.

Clinical Observations and Discussion. It is important to recognize that the above findings must be taken with grains of salt, mainly because all of the derived percentages acquired from the average squared correlations for each of the test instruments are still rather low. The highest percentage--that is, the percentage to which the criterion variable (maternal attachment) is related to the derived variable, which is family function--is 12%.

What these low numbers show is that how well the family functions, the impact of life events, the importance of self concept, and how the mother subjectively experiences the somatic, affective and psychic aspects of her new dyadic

life, has little to do with maternal attachment, as measured on the NCAF scales.

This concept darkens many areas: the reliability of the NCAF scales, the mutability of maternal attachment, and how different it is from other aspects of life that, at first blush, might genuinely impact it, and the difficulty of trying to test a subterranean trajectory with an all-terrain vehicle, like the NCAF scales.

In addition to these conceptual issues are perceptual ones. Some of the mothers ( $n = 2$ ) were single parents, whose families lived elsewhere, yet their attachment behaviors seemed unaffected by their dyadic singularity. Indeed, because they had no social support systems and no family nearby, their attachment behaviors appeared more intense. They had to learn, in a short time, the inter- and intrapsychic vicissitudes of their infants. Consequently, they scored in a consistently high fashion on the NCAF scales. But as far as social support, life events, and family function went, attachment behavior appears separate from these all-too-quantifiable phenomena.

Within the results of the correlation matrices, arguably the most interesting one lies in lack of correlation anywhere at any time. This matrix is the result of correlating the scores on the Tennessee Self Concept Scale and the NCAF scale. This unusual result may lie in scoring tallying

and not using the scales for the description of the "selves," or it may be a problem at a more basic level: that of the researcher's assumption that positive self concept would be a component of secure maternal attachment.

However, in reviewing notes, tapes of the observations that were necessary for scoring the NCAF scales and the standard interviews of the subjects, it is necessary to state that many mothers (n = 10), because they had made a commitment to return to work, were torn between doing what they wanted to do and doing what they wanted to do. Parenthetically, it was literary critic George Steiner who said that tragedy was not the battle between good and evil--it was between good and good.

Difficulties between home and work were well stated by one of the mothers: "When you're at work, you want to be home, and when you're at home you want to be at work." Upon reflection, this psychic bifurcation, and its concomitant anxiety might create the recipe for low self concept.

Finally, before leaving hypothesis two, a word or two must be said about the significance of diagonal correlations in the correlation matrices in Chapter 4. In three of the five matrices, the matrix of Social Support (as measured by the Norbeck Social Support Questionnaire), the matrix of Family Function (as measured by the Feetham Family Function Index), and the matrix of Maternal Subjective Experience (as

measured by the Motherhood Experience Inventory) all showed diagonal matrices that showed the correlations ranging from negative correlations to positive, thus indicating a trend.

Arguably, these trends may indicate acceptance of new life patterns and situations over time, so much so that maternal attachment behaviors become more apparent once new life patterns (as measured by how well the family functions, the importance of social support, and validity of maternal subjective experience) become more commonplace, and thus more relaxed.

### Discussion

#### Hypothesis 3

It was hypothesized that certain areas of maternal perception would correlate with misperceptions found in the general population in the areas of value, identity, reality, and power. The Inventory of Maternal Perception was created (Kime & Tsaguris, 1988) to predict constructive or at-risk behaviors based on the subjective responses involved in the four areas mentioned above, and whether those areas were correlated with maternal attachment, as measured by the NCAF scale.

Findings. It was found that power had the highest correlational value with maternal attachment.

Clinical Observations and Discussion. It is important here to note that the Inventory of Maternal Perception (Kime & Tsaguris, 1988b) was created to predict constructive or at-risk behaviors of working mothers based on the subjective responses to the questionnaire, and to discover how the possible misperceptions of working mothers might impact on maternal attachment behaviors. The Power section of the instrument dealt with control issues. It is interesting to find that power is positively correlated with maternal attachment, as measured by the NCAF scales. Perhaps one of the reasons for the positive correlation is that the NCAF scales deals with the feeding interaction between mother and baby. The mother is in control of the baby and has power over him or her.

The concept of power may or may not imply control; consequently the problem, if there is one, may lie with the conceptual orientation of the creators of the Inventory of Maternal Perception, or the NCAF scale, or both. On the other hand, one might expect one positive correlation to take place out of a possible sixteen, the result of chance. Such problems are often endemic to the structure of pilot studies.

### Discussion

#### Hypothesis 4

It was hypothesized that the measurement of behaviors involved in maternal attachment, as measured by the Mother-

hood Experience Inventory (Kime & Tsaguris, 1988a) and the Inventory of Maternal Perception (Kime & Tsaguris, 1988b) would be negatively or weakly correlated with those measures of behaviors involved in maternal attachment, as measured by the NCAF scales (Barnard, 1978), thus arguably indicating the need to create a different set of measures to measure maternal attachment in more diverse populations.

Findings. The number of negative correlations discovered between the Motherhood Experience Inventory and the NCAF scales, over nine months time, was seven negative correlations out of a possible sixteen. In the Inventory of Maternal Perception, the number was a little less than four negative correlations out of sixteen. The relationships which did appear, whether positive or negative, could be accounted for by chance. Consequently, the researcher failed to definitely prove any major positive or negative significant correlations between the Motherhood Experience Inventory, the Inventory of Maternal Perception, and the NCAF scales.

Clinical Observations and Interpretation. The underlying rationale for creation of the NCAF Scale was to show how the feeding interaction between mother and infant may be symbolic of parent-infant attachment. In other words, how well one feeds one's infant determines how well one is attached to one's infant. The problem here is whether one

considers feeding a social or a custodial interaction. Some mothers view feeding as a time for intimate reciprocal behavior, when a mother may look en fas with her infant and discover the infant's subtle cues. Yet other mothers consider feeding, whether by breast or bottle, a custodial action, something to be gotten over so she and the baby can get on to something else.

Working mothers especially have time constraints on them, almost from the start. Feeding their babies is considered on the same plane as diapering, doing the laundry, and fixing food for the rest of the family.

It is custodial.

It is a duty, not an act of attachment.

The NCAF scale used to measure maternal attachment, used in this study, shows very weak and negative correlations with the Motherhood Experience Inventory and the Inventory of Maternal Perception. It also shows weak correlations between the Feetham Family Function Survey, The Norbeck Social Support Questionnaire, The Tennessee Self Concept Scale and the Sarason Life Events Inventory.

What, then, does the NCAF measure? It measures the amount of reciprocity between a mother and her baby, through the feeding interaction. The basic question, then, is does reciprocity equal maternal attachment? After working eighteen months conducting interviews and videotaping each

mother four times in her home, this researcher believes that reciprocal behaviors can and have been captured on videotape and is essentially part of the attachment trajectory. But it is not the whole thing, nor should it be considered so.

There are other, mitigating variables concerning the study of maternal attachment that must be reckoned with. In this study, 20% (n = 3) of the mothers had an infant die previous to the one being studied. The attachment behaviors, as measured on the NCAF scale for the first time (1 month), showed very low attachment score, mainly because maternal attachment, according to the NCAF scales, equalled reciprocal, affective, talkative behavior. These mothers were automatons. They were seemingly cold, non-smiling individuals who went through the motions. Over time, however, the mothers who had suffered such a tragic loss began to warm to their infants, realizing perhaps that they were not going to lose this one.

Factors such as this, where strong emotions are involved, may skew the scores of the NCAF scales to a great degree. Thus, it is the opinion of the researcher that revision of the NCAF scales are in order, or a new test battery should be created to measure maternal attachment in working women.

### Strengths and Limitations of the Study

The results of the study need to be considered with reference to the strengths and limitations of the design. One strength of the design included the random sampling of the mothers who volunteered to participate. Data were collected using both quantitative and qualitative methods, with instrumentation used previously with similar subject samples. The data were collected longitudinally, over a nine-month period.

Additionally, two new research instruments were created, The Motherhood Experience Inventory and the Inventory of Maternal Perception, when it became apparent that the extant testing instruments were not taking into account the observable stress of the population being studied. The study investigated six independent variables: the impact of life events, how well the family functions, the strength of social support networks, the importance of self concept, the function/dysfunction of maternal perception, and the effect of maternal subjective experience on the new mother-infant dyad, and the relation of these independent variables to maternal attachment. Other studies, as Brundage points out "have measured one or two variables at one time period only" (Brundage, 1987, p. 162).

The limitations of the design include threats to internal, external and construct validity.

### Internal Validity

Internal validity draws false positive or false negative conclusions about causal hypotheses. Internal validity threats in this study include variables about the subjects that were not known at the beginning of the study and may have affected the instrumentation and scoring. Examples were the mothers (n = 3) whose first infants had died and, the mother (n = 1) who had her firstborn by artificial insemination. Instrumentation may have posed a threat to internal validity, as the NCAF scale was an observational tool, and, if the Heisenberg theory is as true in maternal attachment studies as it is in theoretical astrophysics, the object observed is changed by the fact that it is being observed.

Finally, and perhaps most importantly, was the impact of the ambivalence of the subjects concerning returning to work. Those who returned to work fulltime (n = 5) realized they could not do it, then went to parttime, then quit, couldn't tolerate that, then returned to work fulltime. Those women who went back to work parttime (n = 8), with their babies in arms, realized the futility of such an arrangement, stayed home until day care arrangements could be found, then returned to work fulltime. Those mothers (n = 2) who worked in the home had help in the home, and did not fluctuate, workwise, so much. The fact that thirteen out of fifteen in

the study had to change plans to such a degree may have altered maternal attachment behavior to a degree that could not be measured by present instrumentation.

### Construct Validity

A threat to construct validity includes evaluation apprehension of the subjects, which may have been underscored by expectations of the researcher. Mothers who were observed feeding their infants, especially the first and second times, may have been apprehensive about having a relative stranger come into their home, who also was perceived as an expert in child development. Many of the mothers, after the first and second taping would ask the researcher " Did I do O.K.?"

### External Validity

Threats to external validity reflect the problem of generalization of sample results to various others. This particular sample of working mothers, with their particular sets of difficulties (artificial insemination, mortality of firstborns, single parenthood, divorce during the study, etc.) may be atypical of the population of working mothers giving birth.

Implications for Legislative Policy  
and Clinical Practice

The results of this pilot study has several implications for legislative policy and clinical practice.

Legislative Policy

The institution of daycare, for all strata of the population, should be free. It should also begin on day one of the infant's new life, should the mother request. An underlying goal of daycare should be more social than custodial. It should be paid for by the government. Daycare institutions should, on certain days expand to evening care as well.

In Canada and in other countries, the Family Allowance has been a great help to those with children. All segments of the population get a stipend from the government once a month, tax-free, to help with children's needs. Each family received \$65.00 per month, per child. This amount does not seem like much, but it is a great help to those women who work in temporary positions. At least they know there is a check they can count on. In this country, the institution of Family Allowance should be considered.

Small businesses should be helped out by the government, as the women who work as secretaries, key punch operators, receptionists and the like often do not have the benefits that come from working in large businesses. If they

take maternity leave, it is unpaid; if they look for daycare it is on their own time. In essence, women are penalized for wanting something better for their infants and themselves. It would be cost-effective for the government to help small business keep their employees and keep them content.

Finally, working women should be allowed one day a month off, with pay, to attend mandatory parenting classes, in which free counseling sessions are included. This way, they would learn, along with other, the developmental aspects of their child's physical and psychological growth, and encounter other working women who may have had similar life experiences in juggling work and motherhood. Counseling sessions would also be included, both group and individual, for those who felt they needed extra help.

#### Recommendations for Clinical Practice

Dr. Marilyn Heins, a pediatrician in the Tucson area, believes there to be a psychophysical ailment that affects and afflicts many working women called WMS, or Working Mothers Syndrome. It involves fatigue, dizziness, anxiety, and depression. It is the result of trying to combine two lifestyles in one, and trying to cope with too much stress without taking a break (Heins, September 1987, private conversation).

Dr. Heins observed what this researcher observed during the eighteen months of interacting with working mothers: that their lives are changed, in many ways, initially, for the worse after their baby comes. They expected more help more available and good babysitters, expanded daycare, help from family, husband, employer. They expected more time off; they didn't expect to be tired all the time. As one mother said, "What the Women's Movement did was allow me to have two full time careers instead of one."

Women with these difficulties who come for counseling should be dealt with in both individual therapy and group work. In individual therapy, they need to ventilate their feelings as well as be allowed permission to take some time off, away from home and office, to renew their energy. They may also be given permission to say "no" to more responsibilities in the workplace.

They must learn and able to recognize certain of their behaviors as possibly co-dependent--putting everyone else's well-being before her own. The counselor must aid the working mother, empowering her not to become lost in the quagmire of other people's needs.

In group work, peer-influence would allow the overworked mother to take time out and be with empathic others. Peer support and understanding would in themselves

give energy enough to face the often conflicting worlds of home and work.

Through the channels of counseling, group therapy and social legislation, the working mother may yet feel welcome in a culture that has a difficult time prioritizing maternity and productivity. It is to be underscored, then, that the individual is, theoretically at least, most important in a democracy. And filling the needs of woman as mother and woman as worker be a priority as more women of childbearing age enter the workplace.

#### Recommendations for Future Research

The results of this study suggest a need for research in several areas. One recommendation would be to replicate this study with a larger sample of mothers to determine if similar results occur. Another recommendation is to replicate this study with a large group of mothers over two to five years time.

A third recommendation is to gather similar data on mothers who go to work part-time and remain part-time through two years, and contrast them with those mothers who go to work and stay at work full-time for two years.

A fourth recommendation is to improve the instrumentation on maternal attachment. The NCAF scale is appropriate only during the first year of an infant's life,

and has been validated only with a middle-class, caucasian sample (Brundage, 1987, p. 168).

Working mothers come from all socioeconomic levels. Additional investigations of working mothers of different races and different socioeconomic strata are called for.

#### Summary

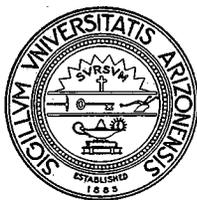
This chapter presented a discussion of the results as they related to the research problems and hypotheses. The results of this study indicate that the attachment behaviors of working mothers are affected in the first month postpartum if they must return to work during the first month, and in the third month postpartum if they return to work in the that month. It was also learned that the strength of social support, the impact of life events, and how well the family functions all have a relationship to maternal attachment. According to the results, the one paradigm unrelated to maternal attachment was self-concept. It was also discovered that maternal attachment was strongly correlated with the realm of power, in the area of maternal misperception. It was also learned that, because of many negative and weak correlations between the NCAF scales, and the Inventory of Maternal Perception and the Motherhood Experience Inventory, that a need for more global instrumentation is called for when defining and measuring maternal attachment.

The results also suggested implications for legislative policy and clinical practice. Because low attachment scores were predicted in the first and third month postpartum, it was suggested that expansion of daycare facilities should be instituted to include newborns, as well as evening care for mothers who need it. Day/evening care should be free.

As a corollary to the expansion of daycare, the government should institute Family Allowances to all mothers with children. Counseling, both individual and group, should be instituted one day a month for mothers of infants under a year. Such a counseling program would do much to dispel disorders of attachment before they began, and would also do much to create a culture where the world of work and the world of parenting might converge.

APPENDIX A

LETTER OF INTRODUCTION



# THE UNIVERSITY OF ARIZONA

TUCSON, ARIZONA 85721

COLLEGE OF AGRICULTURE

SCHOOL OF FAMILY AND CONSUMER RESOURCES  
DIVISION OF COUNSELING AND GUIDANCE

September, 1987

Dear \_\_\_\_\_,

This is a letter of introduction to the Maternal Attachment Study, funded in part by the College of Agriculture, Division of Counseling and Guidance, University of Arizona.

We are investigating how the special relationship between a mother and baby develops over time. We would like to know more about the attachment and bonding process, and whether returning to work affects this special process in any way.

In order to learn more about this, I would like to observe you and your baby during feeding time, either by breast or bottle, in your own home. In order to observe, I will use a portable camcorder, and tape a video of the feeding. After the taping, I will leave a packet of tests with you for you to take as soon as possible after I leave. There will be postage on the envelope, so you can just put them in the mail when you complete the tests.

It is important for you to know that all information obtained from these tests will be kept confidential, your anonymity is guaranteed. The information derived from these tests will be coded by a statistician for analysis. Your responses will be analyzed as a group, not individually.

Participation in this study involves no risk to you or your infant, and the educational benefits--especially greater understanding about it or how working outside the home impacts on the attachment process and personal benefits--the acquisition of early interactions between you and your baby--will be enormous.

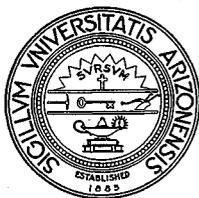
Should you wish to participate in this study, or have any further questions about it, please call me at the University, Department of Counseling and Guidance: 621-3218.

Thank you for your anticipated help.

Susan Thomas Kime, M.A. cd.

APPENDIX B

SUBJECT CONSENT FORM



THE UNIVERSITY OF ARIZONA  
TUCSON, ARIZONA 85721

COLLEGE OF AGRICULTURE

SCHOOL OF FAMILY AND CONSUMER RESOURCES  
DIVISION OF COUNSELING AND GUIDANCE

SUBJECT CONSENT FORM

I have read the Letter of Introduction thoroughly and understand the nature, demands and benefits of the study, I understand that I may ask as many questions as I wish throughout the study and that I am free to withdraw from the study at any time.

---

Subject's Signature

Date

I have carefully explained to the subject the nature of the above research study, and certify to the best of my knowledge the above-named person understands the demands and benefits of this study.

---

Researcher's Signature

Date

APPENDIX C  
TESTING MATERIALS

## ABOUT YOURSELF

## INSTRUCTIONS

On the top line of the separate answer sheet, fill in your name and the other information except for the time information in the last three boxes. You will fill these boxes later. Write only on the answer sheet. Do not put any marks in this booklet.

The statements in this booklet are to help you describe yourself as you see yourself. Please respond to them as if you were describing yourself to yourself. Do not omit any item. Read each statement carefully, then select one of the five responses listed below. On your answer sheet, put a circle around the response you chose. If you want to change an answer after you have circled it, do not erase it but put an X mark through the response and then circle the response you want.

When you are ready to start, find the box on your answer sheet marked time started and record the time. When you are finished, record the time finished in the box on your answer sheet marked time finished.

As you start, be sure that your answer sheet and this booklet are lined up evenly so that the item numbers match each other.

Remember, put a circle around the response number you have chosen for each statement.

Completely False	Mostly False	Partly False and Partly True	Mostly True	Completely True
1	2	3	4	5

You will find these response numbers repeated at the top of each page to help you remember them.

Completely False	Mostly False	Partly False and Partly True	Mostly True	Completely True
---------------------	-----------------	------------------------------------	----------------	--------------------

- |     |   |   |   |   |   |       |
|-----|---|---|---|---|---|-------|
|     | 1   | 2 | 3 | 4 | 5 |       |
| 1.  | I have a healthy body . . . . .   |   |   |   |   | _____ |
| 2.  | I am an attractive person . . . . .   |   |   |   |   | _____ |
| 3.  | I consider myself a sloppy person . . . . .                                   |   |   |   |   | _____ |
| 4.  | I am a decent sort of person . . . . .  |   |   |   |   | _____ |
| 5.  | I am an honest person . . . . .   |   |   |   |   | _____ |
| 6.  | I am a bad person . . . . .   |   |   |   |   | _____ |
| 7.  | I am a cheerful person . . . . .  |   |   |   |   | _____ |
| 8.  | I am a calm and easygoing person . . . . .                                    |   |   |   |   | _____ |
| 9.  | I am a nobody . . . . .   |   |   |   |   | _____ |
| 10. | I have a family that would always help me in any<br>kind of trouble . . . . . |   |   |   |   | _____ |
| 11. | I am a member of a happy family . . . . .                                     |   |   |   |   | _____ |
| 12. | My friends have no confidence in me . . . . .                                 |   |   |   |   | _____ |
| 13. | I am a friendly person . . . . .  |   |   |   |   | _____ |
| 14. | I am popular with men . . . . .   |   |   |   |   | _____ |
| 15. | I am not interested in what other people do . . . . .                         |   |   |   |   | _____ |
| 16. | I do not always tell the truth . . . . .                                      |   |   |   |   | _____ |
| 17. | I get angry sometimes . . . . .   |   |   |   |   | _____ |
| 18. | I like to look nice and neat all the time . . . . .                           |   |   |   |   | _____ |
| 19. | I am full of aches and pains . . . . .  |   |   |   |   | _____ |
| 20. | I am a sick person . . . . .  |   |   |   |   | _____ |
| 21. | I am a religious person . . . . .   |   |   |   |   | _____ |
| 22. | I am a moral failure . . . . .  |   |   |   |   | _____ |

Completely False	Mostly False	Partly False and Partly True	Mostly True	Completely True	
1	2	3	4	5	
23.	I am a morally weak person	. . . . .			_____
24.	I have a lot of self-control	. . . . .			_____
25.	I am a hateful person	. . . . .			_____
26.	I am losing my mind	. . . . .			_____
27.	I am an important person to my friends and family	. . . . .			_____
28.	I am not loved by my family	. . . . .			_____
29.	I feel that my family doesn't trust me	. . . . .			_____
30.	I am popular with women	. . . . .			_____
31.	I am mad at the whole world	. . . . .			_____
32.	I am hard to be friendly with	. . . . .			_____
33.	Once in a while I think of things too bad to talk about	. . . . .			_____
34.	Sometimes, when I am not feeling well, I am cross	. . . . .			_____
35.	I am neither too fat nor too thin	. . . . .			_____
36.	I like my looks just the way they are	. . . . .			_____
37.	I would like to change some parts of my body	. . . . .			_____
38.	I am satisfied with my moral behavior	. . . . .			_____
39.	I am satisfied with my relationship to God	. . . . .			_____
40.	I ought to go to church more	. . . . .			_____
41.	I am satisfied to be just what I am	. . . . .			_____

Completely False	Mostly False	Partly False and Partly True	Mostly True	Completely True
1	2	3	4	5

- 42. I am just as nice as I should be . . . . . \_\_\_\_\_
- 43. I despise myself . . . . . \_\_\_\_\_
- 44. I am satisfied with my family relationships . . . \_\_\_\_\_
- 45. I understand my family relationships . . . . . \_\_\_\_\_
- 46. I should trust my family more . . . . . \_\_\_\_\_
- 47. I am as sociable as I want to be . . . . . \_\_\_\_\_
- 48. I try to please others, but don't overdo it . . . \_\_\_\_\_
- 49. I am no good at all from a social standpoint . . . \_\_\_\_\_
- 50. I do not like everyone I know . . . . . \_\_\_\_\_
- 51. Once in a while, I laugh at a dirty joke . . . . . \_\_\_\_\_
- 52. I am neither too tall nor too short . . . . . \_\_\_\_\_
- 53. I don't feel as well as I should . . . . . \_\_\_\_\_
- 54. I should have more sex appeal . . . . . \_\_\_\_\_
- 55. I am as religious as I want to be . . . . . \_\_\_\_\_
- 56. I wish I could be more trustworthy . . . . . \_\_\_\_\_
- 57. I shouldn't tell so many lies . . . . . \_\_\_\_\_
- 58. I am as smart as I want to be . . . . . \_\_\_\_\_
- 59. I am not the person I would like to be . . . . . \_\_\_\_\_
- 60. I wish I didn't give up as easily as I do . . . . . \_\_\_\_\_
- 61. I treat my parents as well as I should (Use  
past tense if parents are not living) . . . . . \_\_\_\_\_
- 62. I am too sensitive to things my family says . . . \_\_\_\_\_
- 63. I should love my family more . . . . . \_\_\_\_\_

Completely False	Mostly False	Partly False and Partly True	Mostly True	Completely True
1	2	3	4	5

- 64. I am satisfied with the way I treat  
other people . . . . . \_\_\_\_\_
- 65. I should be more polite to others . . . . . \_\_\_\_\_
- 66. I ought to get along better with  
other people . . . . . \_\_\_\_\_
- 67. I gossip a little at times . . . . . \_\_\_\_\_
- 68. At times I feel like swearing . . . . . \_\_\_\_\_
- 69. I take good care of myself physically . . . . . \_\_\_\_\_
- 70. I try to be careful about my appearance . . . . . \_\_\_\_\_
- 71. I often act like I am "all thumbs" . . . . . \_\_\_\_\_
- 72. I am true to my religion in my  
everyday life . . . . . \_\_\_\_\_
- 73. I try to change when I know I'm doing things  
that are wrong . . . . . \_\_\_\_\_
- 74. I sometimes do very bad things . . . . . \_\_\_\_\_
- 75. I can always take care of myself in  
any situation . . . . . \_\_\_\_\_
- 76. I take the blame for things without  
getting mad . . . . . \_\_\_\_\_
- 77. I do things without thinking about  
them first . . . . . \_\_\_\_\_
- 78. I try to play fair with my friends  
and family . . . . . \_\_\_\_\_

Completely False	Mostly False	Partly False and Partly True	Mostly True	Completely True
1	2	3	4	5

- 79. I take a real interest in my family . . . . . \_\_\_\_\_
- 80. I give in to my parents (Use past tense if  
parents are not living) . . . . . \_\_\_\_\_
- 81. I try to understand the other fellow's  
point of view . . . . . \_\_\_\_\_
- 82. I get along well with other people . . . . . \_\_\_\_\_
- 83. I do not forgive others easily . . . . . \_\_\_\_\_
- 84. I would rather win than lose in a game . . . . . \_\_\_\_\_
- 85. I feel good most of the time . . . . . \_\_\_\_\_
- 86. I do poorly in sports and games . . . . . \_\_\_\_\_
- 87. I am a poor sleeper . . . . . \_\_\_\_\_
- 88. I do what is right most of the time . . . . . \_\_\_\_\_
- 89. I sometimes use unfair means to get ahead . . . . . \_\_\_\_\_
- 90. I have trouble doing the things that are right . . . . . \_\_\_\_\_
- 91. I solve my problems quite easily . . . . . \_\_\_\_\_
- 92. I change my mind a lot . . . . . \_\_\_\_\_
- 93. I try to run away from my problems . . . . . \_\_\_\_\_
- 94. I do my share of work at home . . . . . \_\_\_\_\_
- 95. I quarrel with my family . . . . . \_\_\_\_\_
- 96. I do not act like my family thinks I should . . . . . \_\_\_\_\_
- 97. I see good points in all the people I meet . . . . . \_\_\_\_\_

98. I do not feel at ease with other people . . . . \_\_\_\_\_
99. I find it hard to talk with strangers . . . . \_\_\_\_\_
100. Once in a while I put off until tomorrow  
what I ought to do today . . . . . \_\_\_\_\_

ABOUT WHATS HAPPENING IN YOUR LIFE

DIRECTIONS: Listed below are a number of events which sometimes bring about change in the lives of those who experience them and which necessitate social readjustment. Please check those events which you have experienced in the recent past and indicate the time period during which you have experienced each event. Be sure that all check marks are directly across from the items they correspond to.

Also, for each item checked below, please indicate the extent to which you viewed the event as having either a positive or negative impact on your life at the time the event occurred. That is, indicate the type and extent of impact that the event had. A rating of -3 would indicate an extremely negative impact. A rating of 0 suggests no impact either positive or negative. A rating of +3 would indicate an extremely positive impact.

NEGATIVE

Extremely -3  
Moderately -2  
Somewhat -1

NO  
-0

POSITIVE

Extremely +3  
Moderately +2  
Somewhat -1

<u>NEGATIVE</u>			<u>POSITIVE</u>	
Extremely	-3		Extremely	+3
Moderately	-2	<u>NO</u>	Moderately	+2
Somewhat	-1	<u>-0</u>	Somewhat	-1

## Section 1

1. Marriage	-3	-2	-1	0	+1	+2	+3
2. Detention in jail or comparable institution	-3	-2	-1	0	+1	+2	+3
3. Death of spouse	-3	-2	-1	0	+1	+2	+3
4. Major change in sleeping habits (much more or much less sleep)	-3	-2	-1	0	+1	+2	+3
5. Death of close family member:							
a. mother	-3	-2	-1	0	+1	+2	+3
b. father	-3	-2	-1	0	+1	+2	+3
c. brother	-3	-2	-1	0	+1	+2	+3
d. sister	-3	-2	-1	0	+1	+2	+3
e. grandmother	-3	-2	-1	0	+1	+2	+3
f. grandfather	-3	-2	-1	0	+1	+2	+3
g. other (specify)	-3	-2	-1	0	+1	+2	+3
6. Major change in eating habits (much more or much less food intake)	-3	-2	-1	0	+1	+2	+3
7. Foreclosure on mortgage or loan	-3	-2	-1	0	+1	+2	+3
8. Death of a close friend	-3	-2	-1	0	+1	+2	+3
9. Outstanding personal achievement	-3	-2	-1	0	+1	+2	+3

<u>NEGATIVE</u>			<u>POSITIVE</u>	
Extremely	-3		Extremely	+3
Moderately	-2	<u>NO</u>	Moderately	+2
Somewhat	-1	<u>-0</u>	Somewhat	-1

---

10.	Minor law violations (traffic tickets, disturbing the peace, etc.)	-3	-2	-1	0	+1	+2	+3
11.	Male: Wife/girlfriend's pregnancy	-3	-2	-1	0	+1	+2	+3
12.	Female: Pregnancy	-3	-2	-1	0	+1	+2	+3
13.	Changed work situation (different work responsibility, major change in working conditions, working hours, etc.)	-3	-2	-1	0	+1	+2	+3
14.	New job	-3	-2	-1	0	+1	+2	+3
15.	Serious illness or injury of close family member:							
	a. father	-3	-2	-1	0	+1	+2	+3
	b. mother	-3	-2	-1	0	+1	+2	+3
	c. sister	-3	-2	-1	0	+1	+2	+3
	d. brother	-3	-2	-1	0	+1	+2	+3
	e. grandfather	-3	-2	-1	0	+1	+2	+3
	f. grandmother	-3	-2	-1	0	+1	+2	+3
	g. spouse	-3	-2	-1	0	+1	+2	+3
	h. other (specify)	-3	-2	-1	0	+1	+2	+3
16.	Sexual difficulties	-3	-2	-1	0	+1	+2	+3
17.	Trouble with employer (in danger of losing job, being suspended, demoted, etc.)	-3	-2	-1	0	+1	+2	+3
18.	Trouble with in-laws	-3	-2	-1	0	+1	+2	+3

<u>NEGATIVE</u>			<u>POSITIVE</u>					
Extremely	-3		Extremely	+3				
Moderately	-2	<u>NO</u>	Moderately	+2				
Somewhat	-1	<u>-0</u>	Somewhat	-1				
19.	Major change in financial status (a lot better off or a lot worse off)	-3	-2	-1	0	+1	+2	+3
20.	Major change in closeness of family members (increased or decreased closeness)	-3	-2	-1	0	+1	+2	+3
21.	Gaining a new family member (through birth, adoption, family member moving in, etc.)	-3	-2	-1	0	+1	+2	+3
22.	Change of residence	-3	-2	-1	0	+1	+2	+3
23.	Marital separation from mate (due to conflict)	-3	-2	-1	0	+1	+2	+3
24.	Major change in church activities (increased or decreased attendance)	-3	-2	-1	0	+1	+2	+3
25.	Marital reconciliation with mate	-3	-2	-1	0	+1	+2	+3
26.	Major change in number of arguments with spouse (a lot more or a lot less arguments)	-3	-2	-1	0	+1	+2	+3
27.	Married male: Change in wife's work outside the home (beginning work, ceasing work, changing to a new job, etc.)	-3	-2	-1	0	+1	+2	+3
28.	Married female: Change in husband's work (loss of job, beginning new job, retirement, etc.)	-3	-2	-1	0	+1	+2	+3
29.	Major change in usual type and/or amount of recreation	-3	-2	-1	0	+1	+2	+3
30.	Borrowing more than \$10,000 (buying home, business, etc.)	-3	-2	-1	0	+1	+2	+3

<u>NEGATIVE</u>			<u>POSITIVE</u>	
Extremely	-3		Extremely	+3
Moderately	-2	<u>NO</u>	Moderately	+2
Somewhat	-1	<u>-0</u>	Somewhat	-1

---

31.	Borrowing less than \$10,000 (buying car, TV, getting school loan, etc.)	-3	-2	-1	0	+1	+2	+3
32.	Being fired from job	-3	-2	-1	0	+1	+2	+3
33.	Male: Wife/girlfriend having abortion	-3	-2	-1	0	+1	+2	+3
34.	Female: Having abortion	-3	-2	-1	0	+1	+2	+3
35.	Major personal illness or injury	-3	-2	-1	0	+1	+2	+3
36.	Major change in social activi- ties, e.g., parties, movies, visiting (increased or decreased participation)	-3	-2	-1	0	+1	+2	+3
37.	Major change in living condi- tions of family (building new home, remodeling, deterioration of home, neighborhood, etc.)	-3	-2	-1	0	+1	+2	+3
38.	Divorce	-3	-2	-1	0	+1	+2	+3
39.	Serious injury or illness of close friend	-3	-2	-1	0	+1	+2	+3
40.	Retirement from work	-3	-2	-1	0	+1	+2	+3
41.	Son or daughter leaving home (due to marriage, college, etc.)	-3	-2	-1	0	+1	+2	+3
42.	Ending of formal schooling	-3	-2	-1	0	+1	+2	+3
43.	Separation from spouse (due to work, travel, etc.)	-3	-2	-1	0	+1	+2	+3
44.	Engagement	-3	-2	-1	0	+1	+2	+3
45.	Breaking up with boyfriend/ girlfriend	-3	-2	-1	0	+1	+2	+3

<u>NEGATIVE</u>			<u>POSITIVE</u>	
Extremely	-3		Extremely	+3
Moderately	-2	<u>NO</u>	Moderately	+2
Somewhat	-1	<u>-0</u>	Somewhat	-1

---

46.	Leaving home for the first time	-3	-2	-1	0	+1	+2	+3
47.	Reconciliation with boyfriend/ girlfriend	-3	-2	-1	0	+1	+2	+3
Other recent experiences which have had an impact on your life. List and rate.								
48.	_____	-3	-2	-1	0	+1	+2	+3
49.	_____	-3	-2	-1	0	+1	+2	+3
50.	_____	-3	-2	-1	0	+1	+2	+3

## Section 2: Student Only

51.	Beginning a new school experience at a higher academic level (college, graduate school, professional school, etc.)	-3	-2	-1	0	+1	+2	+3
52.	Changing to a new school at same academic level (undergraduate, graduate, etc.)	-3	-2	-1	0	+1	+2	+3
53.	Academic probation	-3	-2	-1	0	+1	+2	+3
54.	Being dismissed from dormitory or other residence	-3	-2	-1	0	+1	+2	+3
55.	Failing an important exam	-3	-2	-1	0	+1	+2	+3
56.	Changing a major	-3	-2	-1	0	+1	+2	+3
57.	Failing a course	-3	-2	-1	0	+1	+2	+3
58.	Dropping a course	-3	-2	-1	0	+1	+2	+3
59.	Joining a fraternity/ sorority	-3	-2	-1	0	+1	+2	+3
60.	Financial problems concerning school (in danger of not having sufficient money to continue)	-3	-2	-1	0	+1	+2	+3

### ABOUT YOUR SOCIAL SUPPORT

Please list each significant person in your life on the right. Consider all the persons who provide personal support for you or who are important to you.

Use only first names or initials, and then indicate the relationship, as in the following example:

Example:

	First Name or Initials	Sex/Relationship
1.	_____	_____
2.	_____	_____
3.	_____	_____
4.	_____	_____
5.	_____	_____
	etc.	

Use the following list to help you think of the people important to you, and list as many people as apply in your case.

- spouse or partner                      - neighbors
- health care providers                - family members or relatives
- counselor or therapist               - friends
- minister/priest/rabbi                - work or school associates
- other

You do not have to use all 22 spaces. Use as many spaces as you have important persons in your life.

## PERSONAL NETWORK

First Name or Initials	Relationship
1. _____	1. _____
2. _____	2. _____
3. _____	3. _____
4. _____	4. _____
5. _____	5. _____
6. _____	6. _____
7. _____	7. _____
8. _____	8. _____
9. _____	9. _____
10. _____	10. _____
11. _____	11. _____
12. _____	12. _____
13. _____	13. _____
14. _____	14. _____
15. _____	15. _____
16. _____	16. _____
17. _____	17. _____
18. _____	18. _____
19. _____	19. _____
20. _____	20. _____
21. _____	21. _____
22. _____	22. _____

For each person you listed, please answer the following questions by writing in the number that applies.

1 = not at all      2 = a little      3 = moderately  
4 = quite a bit    5 = a great deal

Question 1:

How much does this person  
make make you feel liked  
loved?

- 1. \_\_\_\_\_
- 2. \_\_\_\_\_
- 3. \_\_\_\_\_
- 4. \_\_\_\_\_
- 5. \_\_\_\_\_
- 6. \_\_\_\_\_
- 7. \_\_\_\_\_
- 8. \_\_\_\_\_
- 9. \_\_\_\_\_
- 10. \_\_\_\_\_
- 11. \_\_\_\_\_
- 12. \_\_\_\_\_
- 13. \_\_\_\_\_
- 14. \_\_\_\_\_
- 15. \_\_\_\_\_
- 16. \_\_\_\_\_
- 17. \_\_\_\_\_
- 18. \_\_\_\_\_
- 19. \_\_\_\_\_
- 20. \_\_\_\_\_
- 21. \_\_\_\_\_
- 22. \_\_\_\_\_

Question 2:

How much does this person  
you feel respected or or  
admired?

- 1. \_\_\_\_\_
- 2. \_\_\_\_\_
- 3. \_\_\_\_\_
- 4. \_\_\_\_\_
- 5. \_\_\_\_\_
- 6. \_\_\_\_\_
- 7. \_\_\_\_\_
- 8. \_\_\_\_\_
- 9. \_\_\_\_\_
- 10. \_\_\_\_\_
- 11. \_\_\_\_\_
- 12. \_\_\_\_\_
- 13. \_\_\_\_\_
- 14. \_\_\_\_\_
- 15. \_\_\_\_\_
- 16. \_\_\_\_\_
- 17. \_\_\_\_\_
- 18. \_\_\_\_\_
- 19. \_\_\_\_\_
- 20. \_\_\_\_\_
- 21. \_\_\_\_\_
- 22. \_\_\_\_\_

1 = not at all    2 = a little    3 = moderately  
4 = quite a bit    5 = a great deal

Question 3:  
How much can you confide  
in this person?

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_
6. \_\_\_\_\_
7. \_\_\_\_\_
8. \_\_\_\_\_
9. \_\_\_\_\_
10. \_\_\_\_\_
11. \_\_\_\_\_
12. \_\_\_\_\_
13. \_\_\_\_\_
14. \_\_\_\_\_
15. \_\_\_\_\_
16. \_\_\_\_\_
17. \_\_\_\_\_
18. \_\_\_\_\_
19. \_\_\_\_\_
20. \_\_\_\_\_
21. \_\_\_\_\_
22. \_\_\_\_\_

Question 4:  
How much does this person agree  
with or support your actions or  
thoughts?

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_
6. \_\_\_\_\_
7. \_\_\_\_\_
8. \_\_\_\_\_
9. \_\_\_\_\_
10. \_\_\_\_\_
11. \_\_\_\_\_
12. \_\_\_\_\_
13. \_\_\_\_\_
14. \_\_\_\_\_
15. \_\_\_\_\_
16. \_\_\_\_\_
17. \_\_\_\_\_
18. \_\_\_\_\_
19. \_\_\_\_\_
20. \_\_\_\_\_
21. \_\_\_\_\_
22. \_\_\_\_\_

1 = not at all    2 = a little    3 = moderately  
4 = quite a bit    5 = a great deal

Question 5:  
If you needed to borrow \$10,  
a ride to the doctor, or some  
other immediate help, how much  
could this person usually help?

- 1. \_\_\_\_\_
- 2. \_\_\_\_\_
- 3. \_\_\_\_\_
- 4. \_\_\_\_\_
- 5. \_\_\_\_\_
- 6. \_\_\_\_\_
- 7. \_\_\_\_\_
- 8. \_\_\_\_\_
- 9. \_\_\_\_\_
- 10. \_\_\_\_\_
- 11. \_\_\_\_\_
- 12. \_\_\_\_\_
- 13. \_\_\_\_\_
- 14. \_\_\_\_\_
- 15. \_\_\_\_\_
- 16. \_\_\_\_\_
- 17. \_\_\_\_\_
- 18. \_\_\_\_\_
- 19. \_\_\_\_\_
- 20. \_\_\_\_\_
- 21. \_\_\_\_\_
- 22. \_\_\_\_\_

Question 6:  
If you were confined to bed  
for several weeks, how much  
could this person help you?

- 1. \_\_\_\_\_
- 2. \_\_\_\_\_
- 3. \_\_\_\_\_
- 4. \_\_\_\_\_
- 5. \_\_\_\_\_
- 6. \_\_\_\_\_
- 7. \_\_\_\_\_
- 8. \_\_\_\_\_
- 9. \_\_\_\_\_
- 10. \_\_\_\_\_
- 11. \_\_\_\_\_
- 12. \_\_\_\_\_
- 13. \_\_\_\_\_
- 14. \_\_\_\_\_
- 15. \_\_\_\_\_
- 16. \_\_\_\_\_
- 17. \_\_\_\_\_
- 18. \_\_\_\_\_
- 19. \_\_\_\_\_
- 20. \_\_\_\_\_
- 21. \_\_\_\_\_
- 22. \_\_\_\_\_

Question 7:  
How long have you known  
this person?

- 1 = less than 6 months
- 2 = 6 to 12 months
- 3 = 1 to 2 years
- 4 = 2 to 5 years
- 5 = more than 5 years

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

4. \_\_\_\_\_

5. \_\_\_\_\_

6. \_\_\_\_\_

7. \_\_\_\_\_

8. \_\_\_\_\_

9. \_\_\_\_\_

10. \_\_\_\_\_

11. \_\_\_\_\_

12. \_\_\_\_\_

13. \_\_\_\_\_

14. \_\_\_\_\_

15. \_\_\_\_\_

16. \_\_\_\_\_

17. \_\_\_\_\_

18. \_\_\_\_\_

19. \_\_\_\_\_

20. \_\_\_\_\_

21. \_\_\_\_\_

22. \_\_\_\_\_

Question 8:  
How frequently do you usually  
have contact with this person?  
(Phone calls, visits, letters)

- 5 = daily
- 4 = weekly
- 3 = monthly
- 2 = a few times a year
- 1 = once a year or less

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

4. \_\_\_\_\_

5. \_\_\_\_\_

6. \_\_\_\_\_

7. \_\_\_\_\_

8. \_\_\_\_\_

9. \_\_\_\_\_

10. \_\_\_\_\_

11. \_\_\_\_\_

12. \_\_\_\_\_

13. \_\_\_\_\_

14. \_\_\_\_\_

15. \_\_\_\_\_

16. \_\_\_\_\_

17. \_\_\_\_\_

18. \_\_\_\_\_

19. \_\_\_\_\_

20. \_\_\_\_\_

21. \_\_\_\_\_

22. \_\_\_\_\_

9. During the past year, have you lost any important relationships due to moving, a job change, divorce or separation, death, or some other reason?

\_\_\_\_\_ 0. No

\_\_\_\_\_ 1. Yes

IF YES:

9a. Please indicate the number of persons from each category who are no longer available to you.

_____ spouse or partner	[58]
_____ family members or relatives	[59-60]
_____ friends	[61-62]
_____ work or school associates	[63-64]
_____ neighbors	[65-66]
_____ health care providers	[67]
_____ counselor or therapist	[68]
_____ minister/priest/rabbi	[69]
_____ other (specify) _____	[70]

9b. Overall, how much of your support was provided by these people who are no longer available to you?

\_\_\_\_\_ 0. none at all

\_\_\_\_\_ 1. a little

\_\_\_\_\_ 2. a moderate amount

\_\_\_\_\_ 3. quite a bit

\_\_\_\_\_ 4. a great deal

## FAMILY FUNCTIONING SURVEY

For each of the following statements, there are three questions: How much is there now? How much should there be? How important is this to you? Please answer all three questions by circling the number which represents how you feel now about the family function in each statement. The term spouse refers to your husband or wife or the person who acts as your husband or wife.

Please try to answer all items.

---

1. The amount of discussion with your friends regarding your concerns and problems.

(15) a. How much is there now?  
 Little Much  
 1 2 3 4 5 6 7

(16) b. How much should there be?  
 Little Much  
 1 2 3 4 5 6 7

(17) c. How important is this to you?  
 Little Much  
 1 2 3 4 5 6 7

2. The amount of discussion with your relatives regarding your concerns and problems (do not include your spouse).

(18) a. How much is there now?  
 Little Much  
 1 2 3 4 5 6 7

(19) b. How much should there be?  
 Little Much  
 1 2 3 4 5 6 7

(20) c. How important is this to you?  
 Little Much  
 1 2 3 4 5 6 7

3. The amount of time you spend alone with your spouse.

(21) a. How much is there now?  
 Little Much  
 1 2 3 4 5 6 7

(22) b. How much should there be?  
 Little Much  
 1 2 3 4 5 6 7

(23) c. How important is this to you?  
 Little Much  
 1 2 3 4 5 6 7

4. The amount of discussion of your concerns and problems with your spouse.

(24) a. How much is there now?  
 Little Much  
 1 2 3 4 5 6 7

(25) b. How much should there be?  
 Little Much  
 1 3 3 4 5 6 7

(26) c. How important is this to you?  
 Little Much  
 1 2 3 4 5 6 7

5. The amount of time you spend with neighbors.

(27) a. How much is there now?  
 Little Much  
 1 2 3 4 5 6 7

(28) b. How much should there be?  
 Little Much  
 1 2 3 4 5 6 7

(29) c. How important is this to you?  
 Little Much  
 1 2 3 4 5 6 7

6. The amount of time you spend in leisure/recreational activities.

(30) a. How much is there now?  
 Little Much  
 1 2 3 4 5 6 7

(31) b. How much should there be?  
 Little Much  
 1 2 3 4 5 6 7

(32) c. How important is this to you?

Little Much  
1 2 3 4 5 6 7

7. The amount of help from your spouse with family tasks such as care of children, house repairs, household chores, etc.

(33) a. How much is there now?

Little Much  
1 2 3 4 5 6 7

(34) b. How much should there be?

Little Much  
1 2 3 4 5 6 7

(35) c. How important is this to you?

Little Much  
1 2 3 4 5 6 7

8. The amount of help from relatives with family tasks such as care of children, house repairs, household chores, etc. (do not include spouse).

(36) a. How much is there now?

Little Much  
1 2 3 4 5 6 7

(37) b. How much should there be?

Little Much  
1 2 3 4 5 6 7

(38) c. How important is this to you?

Little Much  
1 2 3 4 5 6 7

9. The amount of time with health professionals (doctors, nurses, social workers, etc.).

(39) a. How much is there now?

Little Much  
1 2 3 4 5 6 7

(40) b. How much should there be?

Little Much  
1 2 3 4 5 6 7

(41) c. How important is this to you?

Little Much  
1 2 3 4 5 6 7

10. The amount of help from your friends with family tasks such as care of children, house repairs, household chores, etc.

(42) a. How much is there now?  
 Little Much  
 1 2 3 4 5 6 7

(43) b. How much should there be?  
 Little Much  
 1 2 3 4 5 6 7

(44) c. How important is this to you?  
 Little Much  
 1 2 3 4 5 6 7

11. If you don't have a child, check here \_\_\_\_\_  
 (45) and omit questions 12, 13, 14, and 15.

12. The number of problems with your child(ren).

(46) a. How much is there now?  
 Little Much  
 1 2 3 4 5 6 7

(47) b. How much should there be?  
 Little Much  
 1 2 3 4 5 6 7

(48) c. How important is this to you?  
 Little Much  
 1 2 3 4 5 6 7

13. The amount of time you spend with your child(ren).

(49) a. How much is there now?  
 Little Much  
 1 2 3 4 5 6 7

(50) b. How much should there be?  
 Little Much  
 1 2 3 4 5 6 7

(51) c. How important is this to you?  
 Little Much  
 1 2 3 4 5 6 7

14. If you do not a child in school, check here \_\_\_\_\_  
 and omit question 15. (52)

15. The amount of time your child(ren) miss school.

(53) a. How much is there now?  
 Little Much  
 1 2 3 4 5 6 7

(54) b. How much should there be?  
 Little Much  
 1 2 3 4 5 6 7

(55) c. How important is this to you?  
 Little Much  
 1 2 3 4 5 6 7

16. The number of disagreements with your spouse.

(56) a. How much is there now?  
 Little Much  
 1 2 3 4 5 6 7

(57) b. How much should there be?  
 Little Much  
 1 2 3 4 5 6 7

(58) c. How important is this to you?  
 Little Much  
 1 2 3 4 5 6 7

17. The amount of time you are ill.

(59) a. How much is there now?  
 Little Much  
 1 2 3 4 5 6 7

(60) b. How much should there be?  
 Little Much  
 1 2 3 4 5 6 7

(61) c. How important is this to you?  
 Little Much  
 1 2 3 4 5 6 7

18. The amount of time you spend doing housework  
 (cooking, cleaning, washing, yardwork, etc.)

(62) a. How much is there now?  
 Little Much  
 1 2 3 4 5 6 7

(63) b. How much should there be?  
 Little Much  
 1 2 3 4 5 6 7

- (64) c. How important is this to you?  
 Little Much  
 1 2 3 4 5 6 7
19. The amount of time you miss work (including housework).
- (65) a. How much is there now?  
 Little Much  
 1 2 3 4 5 6 7
- (66) b. How much should there be?  
 Little Much  
 1 2 3 4 5 6 7
- (67) c. How important is this to you?  
 Little Much  
 1 2 3 4 5 6 7
20. The amount of time your spouse misses work (including housework).
- (68) a. How much is there now?  
 Little Much  
 1 2 3 4 5 6 7
- (69) b. How much should there be?  
 Little Much  
 1 2 3 4 5 6 7
- (70) c. How important is this to you?  
 Little Much  
 1 2 3 4 5 6 7
21. The amount of emotional support from friends.
- (71) a. How much is there now?  
 Little Much  
 1 2 3 4 5 6 7
- (72) b. How much should there be?  
 Little Much  
 1 2 3 4 5 6 7
- (73) c. How important is this to you?  
 Little Much  
 1 2 3 4 5 6 7
22. The amount of emotional support from relatives.
- (74) a. How much is there now?  
 Little Much





Motherhood Experience Inventory

**DIRECTIONS:** This inventory will help provide a picture of what being a mother is like right now for you as a woman. This is only a picture of today. You might answer the items differently tomorrow. That is perfectly all right. Read each item carefully, then look at the words below it. Circle the group of words that fits. Then go on to the next item. Take as long as you like.

Please complete the following two items:

A. Number of previous experiences caring for a newborn\_\_\_\_\_

B. Number of children born before this baby\_\_\_\_\_

1. I am not living up to my expectations of myself as a mother.

Agree strongly/Agree mostly/Agree somewhat/Disagree mostly/Disagree strongly

2. I am a lot like my mother in the way I take care of this baby.

Agree strongly/Agree mostly/Agree somewhat/Disagree mostly/Disagree strongly

3. The baby behaves differently than I expected it to.

Agree strongly/Agree mostly/Agree somewhat/Disagree mostly/Disagree strongly

4. I am less attractive now than I was before the baby came.

Agree strongly/Agree mostly/Agree somewhat/Disagree mostly/Disagree strongly

5. My baby loves me.

Agree strongly/Agree mostly/Agree somewhat/Disagree mostly/Disagree strongly

6. Now that the baby is here, I have plenty of time to do important things.

Agree strongly/Agree mostly/Agree somewhat/Disagree mostly/Disagree strongly

7. My baby looks as I expected.

Agree strongly/Agree mostly/Agree somewhat/Disagree mostly/Disagree strongly

8. I am less important as a person now than I was before the baby came.  
Agree strongly/Agree mostly/Agree somewhat/Disagree mostly/Disagree strongly

9. Something unexpected could happen to the baby.  
Agree strongly/Agree mostly/Agree somewhat/Disagree mostly/Disagree strongly

10. I can change my life now.  
Agree strongly/Agree mostly/Agree somewhat/Disagree mostly/Disagree strongly

11. Since the baby came, my greatest problem is \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_.

12. Since the baby came, my greatest joy is \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_.

1. I feel depressed.  
Agree strongly/Agree mostly/Agree somewhat/Disagree mostly/Disagree strongly

2. I feel like I'm about to explode inside.  
Agree strongly/Agree mostly/Agree somewhat/Disagree mostly/Disagree strongly

3. I feel lonely.  
Agree strongly/Agree mostly/Agree somewhat/Disagree mostly/Disagree strongly

4. I feel a sense of loss.  
Agree strongly/Agree mostly/Agree somewhat/Disagree mostly/Disagree strongly

5. I have fears about the future.  
Agree strongly/Agree mostly/Agree somewhat/Disagree mostly/Disagree strongly

6. I feel my own childhood slipping away.

Agree strongly/Agree mostly/Agree somewhat/Disagree mostly/Disagree strongly

7. I have a sense of well-being.

Agree strongly/Agree mostly/Agree somewhat/Disagree mostly/Disagree strongly

8. I feel relaxed about the future.

Agree strongly/Agree mostly/Agree somewhat/Disagree mostly/Disagree strongly

9. I feel glad that I had this baby.

Agree strongly/Agree mostly/Agree somewhat/Disagree mostly/Disagree strongly

10. I feel contented with my life.

Agree strongly/Agree mostly/Agree somewhat/Disagree mostly/Disagree strongly

11. I feel guilt about how I really am as a mother compared to how I think I should be.

Agree strongly/Agree mostly/Agree somewhat/Disagree mostly/Disagree strongly

12. Since the baby came, my most troubling feeling is \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_.

13. Since the baby came, my most welcome feeling is \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_.

1. I have been experiencing headaches.

Agree strongly/Agree mostly/Agree somewhat/Disagree mostly/Disagree strongly

2. I have been experiencing almost no back pain.

Agree strongly/Agree mostly/Agree somewhat/Disagree mostly/Disagree strongly

3. I have been experiencing pain around my stitches.

Agree strongly/Agree mostly/Agree somewhat/Disagree mostly/Disagree strongly

4. I have been experiencing tiredness.

Agree strongly/Agree mostly/Agree somewhat/Disagree mostly/Disagree strongly

5. I have been experiencing very little digestive trouble.

Agree strongly/Agree mostly/Agree somewhat/Disagree mostly/Disagree strongly

6. I have been experiencing jaw pain.

Agree strongly/Agree mostly/Agree somewhat/Disagree mostly/Disagree strongly

7. I have been experiencing very little bloating sensation.

Agree strongly/Agree mostly/Agree somewhat/Disagree mostly/Disagree strongly

9. I have been experiencing shortness of breath.

Agree strongly/Agree mostly/Agree somewhat/Disagree mostly/Disagree strongly

10. I have been experiencing almost no skin problems.

Agree strongly/Agree mostly/Agree somewhat/Disagree mostly/Disagree strongly

11. Since the baby came, my most troublesome physical symptom is\_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

12. Since the baby came, my least troublesome physical symptom is\_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

### The Inventory of Maternal Perception

DIRECTIONS: This inventory will help provide a picture of how you perceive, or, see important aspects of yourself as a mother. Read each item carefully, then answer each question as honestly as possible. This inventory should take you about 1/2 hour to complete.

#### SECTION I.

1. I am able to keep to a routine I feel comfortable with.

Agree strongly/Agree mostly/Agree somewhat/Disagree Mostly/  
Disagree Strongly

2. Since the baby was born, I am not able to keep my house the way I like it.

Agree strongly/Agree Mostly/Agree Somewhat/ Disagree Mostly/  
Disagree strongly

3. I am finding it hard to keep myself as comfortable and clean as I want.

Agree strongly/ Agree Mostly/ Agree Somewhat/ Disagree Mostly/  
Disagree Strongly.

4. I am able to plan and prepare the family meals around the same time each day.

Agree Strongly/ Agree Mostly/ Agree Somewhat/ Disagree Mostly/  
disagree strongly

5. What situation has become most routine since the baby came?  
What situation has become least routine?

-----

-----

-----

Section II.

1. My baby seems to know how to control me.

Agree Strongly/ Agree Mostly/ Agree Somewhat/ Disagree Mostly/  
Disagree Strongly

2. I have a lot of help in taking care of this baby.

Agree Strongly/ Agree Mostly/ Agree Somewhat/ Disagree Mostly/  
Disagree Strongly

3. I can't seem to take time out from the baby's needs.

Agree Strongly/ Agree Mostly/ Agree Somewhat/ Disagree Mostly/  
Disagree Strongly

4. Sharing my life with the baby is easier than what I expected.

Agree Strongly/ Agree Mostly/ Agree Somewhat/ Disagree Mostly/  
Disagree Strongly

5. Sometimes I would like to leave home for a few days.

Agree Strongly/ Agree Mostly/ Agree Somewhat/Disagree Mostly/  
Disagree Strongly.

6. Describe below one situation you feel most caught in right  
now.

-----  
-----  
-----

Section III.

1. It is easy for me to be loving toward those what matter.

Agree strongly/ Agree mostly/ Agree somewhat/ Disagree Mostly/  
Disagree Strongly.

2. I felt truly loved by my parents when I was a child.

Agree Strongly/ Agree Mostly/ Agree Somewhat/ Disagree Mostly/

Disagree Strongly.

3. I see myself as a lovable person.

Agree strongly/ Agree Mostly/ Agree Somewhat/ Disagree Mostly/  
Disagree Strongly

4. I like almost everyone I know well.

Agree Strongly/ Agree Mostly/ Agree Somewhat/ Disagree Mostly/  
Disagree Strongly

5. Describe one change you feel about yourself since the baby came.

-----

-----

-----

Section IV.

1. I don't worry about other people's criticism of me.

Agree strongly/ Agree Mostly/ Agree Somewhat/ Disagree Mostly/  
Disagree Strongly.

2. I sometimes go along with what others think, even though I may believe differently.

Agree strongly/ Agree mostly/ Agree somewhat/ Disagree Mostly/  
Disagree strongly.

3. I feel O.K. when I express my likes and dislikes to others.

Agree strongly/ Agree mostly/ Agree somewhat/ Disagree mostly/  
Disagree Strongly.

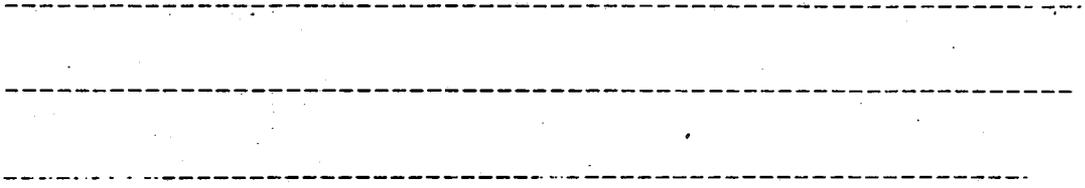
4. I worry about what others think of me.

Agree strongly/ Agree Mostly/ Agree somewhat/ Disagree Mostly/  
Disagree Strongly.

5. I feel ashamed if my house is not clean.

Agree strongly/ Agree Mostly/ Agree Somewhat/ Disagree Mostly/  
Disagree Strongly.

6. Describe one way your personality has changed since your baby came.



UNIVERSITY OF WASHINGTON  
SCHOOL OF NURSING  
NURSING CHILD ASSESSMENT TRAINING

**FEEDING SCALE**  
(BIRTH TO ONE YEAR)

RECORDER'S NAME \_\_\_\_\_

DATE \_\_\_\_\_

USUAL FEEDING TIME (CIRCLE)  
YES NO

PERSON OBSERVED IN INTERACTION (CIRCLE)  
MOTHER FATHER OTHER

MAJOR CAREGIVER (CIRCLE)  
YES NO

TYPE OF FEEDING (CIRCLE)  
BREAST BOTTLE SOLID

LENGTH OF FEEDING (CIRCLE)  
10 OR LESS 10-20 20-30 30 OR MORE

SETTING (CIRCLE)  
HOME CLINIC OTHER

CHILD'S FIRST NAME \_\_\_\_\_

CHILD'S AGE (IN MONTHS) \_\_\_\_\_

CHILD'S SEX \_\_\_\_\_

CHILD'S RACE \_\_\_\_\_

PARITY \_\_\_\_\_

MOTHER'S EDUCATION (CIRCLE)  
6 YRS. OR LESS 7-8-9-10-11-12-13-14-  
15-16-17-18-19-20+

MARITAL STATUS (CIRCLE)  
MARRIED NOT MARRIED

MOTHER'S AGE (AT BIRTH OF CHILD) \_\_\_\_\_

	YES	NO
<b>I. SENSITIVITY TO CUES</b>		
1. PARENT POSITIONS CHILD SO THAT CHILD IS SAFE BUT CAN MOVE HIS ARMS.		
2. PARENT POSITIONS CHILD SO THAT THE CHILD'S HEAD IS HIGHER THAN HIPS.		
3. PARENT POSITIONS CHILD SO THAT TRUNK-TO-TRUNK CONTACT IS MAINTAINED DURING MORE THAN HALF OF THE BREAST OR BOTTLE FEEDING (50%).		
4. PARENT POSITIONS CHILD SO THAT EYE-TO-EYE CONTACT IS POSSIBLE.		
5. PARENT'S FACE IS AT LEAST 7-8 INCHES OR MORE FROM THE CHILD'S FACE DURING FEEDING EXCEPT WHEN KISSING, CARESSING, HUGGING OR BURPING THE CHILD.		
6. PARENT SMILES, VERBALIZES, OR MAKES EYE CONTACT WITH CHILD WHEN CHILD IS IN OPEN-FACE-GAZE POSITION.		
7. PARENT COMMENTS VERBALLY ON CHILD'S HUNGER CUES PRIOR TO FEEDING.		
8. PARENT COMMENTS VERBALLY ON CHILD'S SATIATION CUES BEFORE TERMINATING FEEDING.		
9. PARENT VARIES THE INTENSITY OF VERBAL STIMULATION DURING FEEDING.		
10. PARENT VARIES INTENSITY OF ROCKING OR MOVING THE CHILD DURING THE FEEDING.		
11. PARENT VARIES THE INTENSITY OF TOUCH DURING THE FEEDING.		
12. PARENT ALLOWS PAUSES IN FEEDING WHEN THE CHILD INDICATES BY CRY FACE, HALT HAND, BACK ARCHING, PULLING AWAY, PUSHING FOOD AWAY, TRAY POUNDING, TURNING HEAD, SHAKING HEAD NO OR SAYING "NO" OR FALLING ASLEEP OR WHEN CHILD IS IN PAUSE PHASE OF THE BURST-PAUSE SEQUENCE OF SUCKING (75% OF THE TIME).		
13. PARENT SLOWS PACE OF FEEDING OR PAUSES WHEN CHILD AVERTS GAZE, PLACES HAND-TO-EAR, HAND-TO-MOUTH, HAND-BEHIND-HEAD, HAND-BACK-OF-NECK, HANDS OVER STOMACH, YAWNS, RUBS EYE OR DISPLAYS FEET MOVEMENT (75% OF THE TIME).		
14. PARENT TERMINATES THE FEEDING WHEN THE CHILD TURNS HEAD, FALLS ASLEEP, COMPRESSES LIPS, PUSHES FOOD AWAY, SHAKES HEAD "NO" OR SAYS "NO," ONCE OR MORE OR AFTER OTHER METHODS (REPOSITIONING, BURPING, OR WAITING) HAVE PROVED UNSUCCESSFUL.		

*15. PARENT DOES NOT INTERRUPT CHILD'S SUCKING OR CHEWING BY REMOVING THE NIPPLE, JIGGLING THE NIPPLE, OR OFFERING THE CHILD MORE OR OTHER KINDS OF FOOD WHILE CHILD IS EATING.		
*16. PARENT DOES NOT OFFER FOOD WHEN THE CHILD LOOKS AWAY, LOOKS DOWN, TURNS AWAY OR TURNS AROUND.		
SUBSCALE TOTAL (NO. OF YES ANSWERS)		
II. RESPONSE TO DISTRESS (INDICATE IN BOX WHETHER OCCURRED OR NOT. IF NO DISTRESS, MARK EACH BOX "YES".) IF CHILD SHOWS DISTRESS DURING THE FEEDING DOES THE PARENT:		
17. STOP OR START FEEDING IN RESPONSE TO THE CHILD'S DISTRESS.		
18. CHANGE THE CHILD'S POSITION IN RESPONSE TO CHILD'S DISTRESS.		
19. MAKE POSITIVE OR SYMPATHETIC VERBALIZATION IN RESPONSE TO CHILD'S DISTRESS.		
20. CHANGES VOICE VOLUME TO SOFTER OR HIGHER PITCH IN RESPONSE TO CHILD'S DISTRESS.		
21. MAKES SOOTHING NON-VERBAL EFFORTS IN RESPONSE TO CHILD'S DISTRESS.		
22. DIVERTS CHILD'S ATTENTION BY PLAYING GAMES, INTRODUCING A TOY, OR MAKING FACES IN RESPONSE TO CHILD'S DISTRESS.		
23. PARENT DOES NOT MAKE NEGATIVE VERBAL RESPONSE IN RESPONSE TO CHILD'S DISTRESS.		
24. PARENT DOES NOT MAKE NEGATIVE COMMENTS TO HOME VISITOR ABOUT CHILD IN RESPONSE TO CHILD'S DISTRESS.		
25. PARENT DOES NOT YELL AT THE CHILD IN RESPONSE TO HIS DISTRESS.		
26. PARENT DOES NOT USE ABRUPT MOVEMENTS OR ROUGH HANDLING IN RESPONSE TO CHILD'S DISTRESS.		
27. PARENT DOES NOT SLAP, HIT, OR SPANK CHILD IN RESPONSE TO DISTRESS.		
SUBSCALE TOTAL (NO. OF YES ANSWERS)		
III. SOCIAL-EMOTIONAL GROWTH FOSTERING		
28. PARENT PAYS MORE ATTENTION TO CHILD DURING FEEDING THAN TO OTHER PEOPLE OR THINGS IN ENVIRONMENT.		
29. PARENT IS IN EN FACE POSITION FOR MORE THAN HALF OF THE FEEDING (50%).		
30. PARENT SUCCEEDS IN MAKING EYE CONTACT WITH CHILD ONCE DURING FEEDING.		
31. PARENT'S FACIAL EXPRESSION CHANGES AT LEAST TWICE DURING FEEDING.		
32. PARENT ENGAGES IN SOCIAL FORMS OF INTERACTION (PLAYS GAMES WITH CHILD) AT LEAST ONCE DURING THE FEEDING.		
33. PARENT USES POSITIVE STATEMENTS IN TALKING TO CHILD DURING THE FEEDING.		
34. PARENT PRAISES CHILD OR SOME QUALITY OF THE CHILD'S BEHAVIOR DURING THE FEEDING.		
35. PARENT HUMS, CROONS, SINGS OR CHANGES THE PITCH OF HIS/HER VOICE DURING THE FEEDING.		
36. PARENT LAUGHS OR SMILES DURING THE FEEDING.		
37. PARENT USES GENTLE FORMS OF TOUCHING DURING THE FEEDING.		

\*NEED ONLY OCCUR ONCE TO SCORE "NO"

38. PARENT SMILES, VERBALIZES OR TOUCHES CHILD WITHIN 5 SECONDS OF CHILD SMILING OR VOCALIZING AT PARENT.		
39. PARENT DOES NOT COMPRESS LIPS, GRIMACE, OR FROWN WHEN MAKING EYE CONTACT WITH CHILD.		
40. PARENT DOES NOT SLAP, HIT, SHAKE, OR GRAB CHILD OR CHILD'S EXTREMITIES DURING THE FEEDING.		
41. PARENT DOES NOT MAKE NEGATIVE OR UNCOMPLIMENTARY REMARKS TO THE CHILD OR HOME VISITOR ABOUT THE CHILD OR CHILD'S BEHAVIOR.		
SUBSCALE TOTAL (NO. OF YES ANSWERS)		

IV. COGNITIVE GROWTH FOSTERING

42. PARENT PROVIDES CHILD WITH OBJECTS, FINGER FOODS, TOYS, AND/OR UTENSILS		
43. PARENT ENCOURAGES AND/OR ALLOWS THE CHILD TO EXPLORE THE BREAST, BOTTLE, FOOD, CUP, BOWL OR THE PARENT DURING FEEDING.		
44. PARENT TALKS TO THE CHILD USING TWO WORDS AT LEAST THREE TIMES DURING THE FEEDING.		
45. PARENT VERBALLY DESCRIBES SOME ASPECT OF THE FOOD OR FEEDING SITUATION TO CHILD DURING FEEDING.		
46. PARENT TALKS TO CHILD ABOUT THINGS OTHER THAN FOOD, EATING, OR THINGS RELATED TO THE FEEDING.		
47. PARENT USES STATEMENTS THAT DESCRIBE, ASK QUESTIONS OR EXPLAINS CONSEQUENCES OF BEHAVIOR MORE THAN COMMANDS IN TALKING TO THE CHILD.		
48. PARENT VERBALIZES TO CHILD WITHIN FIVE SECONDS AFTER CHILD HAS VOCALIZED.		
49. PARENT VERBALIZES TO CHILD WITHIN FIVE SECONDS AFTER CHILD'S MOVEMENT OF ARMS, LEGS, HANDS, HEAD, TRUNK.		
50. PARENT DOES NOT TALK BABY TALK.		
SUBSCALE TOTAL (NO. OF YES ANSWERS)		

	YES	NO
V. CLARITY OF CUES		
51. CHILD SIGNALS READINESS TO EAT.		
52. CHILD DISPLAYS A BUILD-UP OF TENSION AT THE BEGINNING OF FEEDING.		
53. CHILD DEMONSTRATES A DECREASE IN TENSION WITHIN A FEW MINUTES AFTER FEEDING HAS BEGUN.		
54. CHILD HAS PERIODS OF ALERTNESS DURING THE FEEDING.		
55. CHILD DISPLAYS AT LEAST TWO DIFFERENT EMOTIONS DURING THE FEEDING.		
56. CHILD HAS PERIODS OF ACTIVITY AND INACTIVITY DURING THE FEEDING.		
57. CHILD'S MOVEMENTS ARE SMOOTH AND COORDINATED DURING THE FEEDING.		
58. CHILD'S ARM AND LEG MOVEMENTS ARE GENERALLY DIRECTED TOWARD PARENT DURING FEEDING (NOT DIFFUSE).		
59. CHILD MAKES CONTACT WITH PARENT'S FACE OR EYES AT LEAST ONCE DURING FEEDING.		
60. CHILD VOCALIZES DURING FEEDING.		
61. CHILD SMILES OR LAUGHS DURING FEEDING.		

62. CHILD AVERTS GAZE, LOOKS DOWN OR TURNS AWAY DURING FEEDING.		
63. CHILD ACTIVELY RESISTS FOOD OFFERED.		
64. CHILD DEMONSTRATES SATISFACTION AT END OF FEEDING THROUGH SLEEP, FACIAL EXPRESSIONS, DECREASED MUSCLE TONE, ARMS EXTENDED ALONG SIDE, VOCALIZATIONS OR CHANGE IN ACTIVITY LEVEL OR MOOD.		
65. CHILD DOES NOT HAVE MORE THAN TWO RAPID STATE CHANGES DURING FEEDING.		
SUBSCALE TOTAL (NO. OF YES ANSWERS)		

VI. RESPONSIVENESS TO PARENT		
66. CHILD RESPONDS TO FEEDING ATTEMPTS BY PARENT DURING FEEDING.		
67. CHILD RESPONDS TO GAMES, SOCIAL PLAY OR SOCIAL CUES OF PARENT DURING FEEDING.		
68. CHILD LOOKS IN THE DIRECTION OF THE PARENT'S FACE AFTER PARENT HAS ATTEMPTED TO ALERT THE CHILD VERBALLY OR NON-VERBALLY DURING FEEDING.		
69. CHILD VOCALIZES TO PARENT DURING FEEDING.		
70. CHILD VOCALIZES OR SMILES WITHIN 5 SECONDS OF PARENT'S VOCALIZATION.		
71. CHILD SMILES AT PARENT DURING FEEDING.		
72. CHILD EXPLORES PARENT OR REACHES OUT TO TOUCH PARENT DURING FEEDING.		
73. CHILD SHOWS A CHANGE IN LEVEL OF MOTOR ACTIVITY WITHIN 5 SECONDS OF BEING HANDLED OR REPOSITIONED BY PARENT.		
74. CHILD SHOWS POTENT DISENGAGEMENT CUES DURING LAST HALF OF FEEDING.		
75. CHILD SHOWS POTENT DISENGAGEMENT CUES WITHIN 5 SECONDS AFTER PARENT MOVES CLOSER THAN 7 TO 8 INCHES FROM CHILD'S FACE.		
76. CHILD DOES NOT TURN AWAY OR AVERT GAZE FROM PARENT DURING FIRST HALF OF FEEDING.		
SUBSCALE TOTAL (NO. OF YES ANSWERS)		

ENTER TOTALS FOR EACH CATEGORY:	
SENSITIVITY TO CUES	
RESPONSE TO DISTRESS	
SOCIAL-EMOTIONAL GROWTH FOSTERING	
COGNITIVE GROWTH FOSTERING	
CLARITY OF CUES	
RESPONSIVENESS TO PARENT	
TOTAL (NO. OF YES ANSWERS)	

**HOME VISIT QUESTIONS:**

**1. WOULD YOU SAY THIS WAS A TYPICAL FEEDING?**  
A. YES      B. NO  
IF NO, WHY NOT?

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**2. WERE YOU UNCOMFORTABLE DURING ANY PART OF THE FEEDING DUE TO MY PRESENCE?**  
A. YES      B. NO  
IF YES, WHY?

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**3. DO YOU HAVE ANY CONCERNS ABOUT THE FEEDING OR YOUR CHILD'S EATING?**  
A. YES      B. NO  
IF YES, SPECIFY.

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**4. OBSERVER'S COMMENTS:**

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APPENDIX D

TIMELINE FOR TESTING SUBJECTS

Time Line

<u>Subject</u>	<u>1st month</u>	<u>3rd month</u>	<u>6th month</u>	<u>9th month</u>
0025:	TSCS SLES NSSQ FFFI  NCAFS(1)	MEI     NCAFS(2)	TSCS SLES NSSQ FFFI MEI NCAFS(3)	TSCS SLES NSSQ FFFI MEI NCAFS(4) IMP
*****				
0026:	TSCS SLES NSSQ FFFI NCAFS(1)	MEI    NCAFS(2)	TSCS SLES NSSQ FFFI MEI NCAFS(3)	TSCS SLES NSSQ FFFI MEI IMP NCAFS(4)
*****				
0027:	TSCS SLES NSSQ FFFI NCAFS(1)	MEI    NCAFS(2)	TSCS SLES NSSQ FFFI MEI NCAFS(3)	TSCS SLES NSSQ FFFI MEI IMP NCAFS(4)
*****				
0028:	TSCS SLES NSSQ FFFI NCAFS(1)	MEI    NCAFS(2)	TSCS SLES NSSQ FFFI MEI NCAFS(3)	TSCS SLES NSSQ FFFI MEI IMP NCAFS(4)
*****				
0029:	TSCS SLES NSSQ FFFI NCAFS(1)	MEI    NCAFS(2)	TSCS SLES NSSQ MEI FFFI NCAFS(3)	TSCS SLES NSSQ MEI IMP FFFI NCAFS(4)
*****				

<u>Subject</u>	<u>1st month</u>	<u>3rd month</u>	<u>6th month</u>	<u>9th month</u>
0030:	TSCS SLES NSSQ FFFI NCAFS(1)	MEI    NCAFS(2) NCAFS(3)	TSCS SLES NSSQ MEI FFFI	TSCS SLES NSSQ MEI FFFI IMP NCAFS(4)

\*\*\*\*\*

0031:	TSCS SLES NSSQ FFFI NCAFS(1)	MEI    NCAFS(2)	TSCS SLES NSSQ FFFI MEI NCAFS(3)	TSCS SLES NSSQ FFFI MEI-IMP NCAFS(4)
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0032:	TSCS MEI SLES NSSQ  FFFI NCAFS(1)	TSCS MEI SLES NSSQ  FFFI NCAFS(2)	TSCS MEI SLES NSSQ  FFFI NCAFS(3)	TSCS MEI SLES NSSQ IMP FFFI NCAFS(4)
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0033:	TSCS MEI SLES NSSQ FFFI  NCAFS(1)	TSCS MEI SLES NSSQ FFFI  NCAFS(2)	TSCS MEI SLES NSSQ FFFI  NCAFS(3)	TSCS MEI SLES NSSQ FFFI IMP NCAFS(4)
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0034:	TSCS MEI SLES NSSQ FFFI  NCAFS(1)	TSCS MEI SLES NSSQ FFFI  NCAFS(2)	TSCS MEI SLES NSSQ FFFI  NCAFS(3)	TSCS MEI SLES NSSQ FFFI IMP NCAFS(4)
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Subject	1st month	3rd month	6th month	9th month
0035:	TSCS	TSCS	TSCS	TSCS
	MEI	MEI	MEI	MEI
	SLES	SLES	SLES	SLES
	NSSQ	NSSQ	NSSQ	NSSQ
	FFFI	FFFI	FFFI	FFFI
	NCAFS(1)	NCAFS(2)	NCAFS(3)	NCAFS(4)
				IMP

\*\*\*\*\*

0036:	TSCS	TSCS	TSCS	TSCS
	MEI	MEI	MEI	MEI
	SLES	SLES	SLES	SLES
	NSSQ	NSSQ	NSSQ	NSSQ
	FFFI	FFFI	FFFI	FFFI
	NCAFS(1)	NCAFS(2)	NCAFS(3)	IMP
				NCAFS(4)

\*\*\*\*\*

0037:	TSCS	TSCS	TSCS	TSCS
	MEI	MEI	MEI	MEI
	SLES	NSSQ	NSSQ	NSSQ
	SLES	SLES	SLES	FFFI
	FFFI	FFFI	FFFI	
	NCAFS(1)	NCAFS(2)	NCAFS(3)	NCAFS(4)
				IMP

\*\*\*\*\*

0038:	MEI	TSCS	TSCS	MEI
	TSCS	MEI	MEI	IMP
	SLES	SLES	SLES	TSCS
	NSSQ	NSSQ	NSSQ	SLES
	FFFI	FFFI	FFFI	NSSQ
	NCAFS(1)	NCAFS(2)	NCAFS(3)	FFFI
				NCAFS(4)

\*\*\*\*\*

0039:	MEI	TSCS	TSCS	IMP
	TSCS	MEI	MEI	MEI
	SLES	SLES	SLES	SLES
	NSSQ	NSSQ	NSSQ	NSSQ
	FFFI	FFFI	FFFI	FFFI
	NCAFS(1)	NCAFS(2)	NCAFS(3)	NCAFS(4)

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