ATTACHMENT BEHAVIORS OF ADOLESCENT AND YOUNG ADULT PRIMIPARAS

A THESIS

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS

FOR THE DEGREE OF MASTER OF SCIENCE

IN THE GRADUATE SCHOOL OF THE

TEXAS WOMAN'S UNIVERSITY

COLLEGE OF NURSING

BY

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DENTON, TEXAS

AUGUST 1980

ACKNOWLEDGEMENTS

The author gratefully acknowledges all these family and friends who offered their assistance and sustaining faith during this study:

My wonderful husband and friend, John, and three lovely children, Frances, Sarah, and Charlie, who reciprocate love and attachment;

My committee chairperson, Gail Watson, and committee members, Pat Kurtz and Tommie Wallace, who are truly facilitators of learning;

Turp, who worked long and hard as a surrogate mother to us all;

Sudie, who worked many hard hours;

Dr. Beth Vaughan-Wrobel and Dr. Helen Bush for their support;

Dr. Diane Smith, who opened the door to new experiences and coping behaviors;

Suzanne Kindel for her support;

Catherine Cropley, who offered her suggestions and observation guide for maternal behaviors;

The medical and nursing staff of the postpartum units where data were collected, and especially to Mary Ann Best and Betty Grice;

Dr. Joan Reisch and Britt Canada for their statistical assistance;

Margaret Jordan for her typing expertise;

My special friends Pattie, Barbara, Honey, Lou, Myrtle, Carol, Clif, Lula Fae, Mimi, Aline, Liz, Dennis, Matt, James, Mark, Jim, Fr. Garrard, Mildred, Susan, Karen, Terrance, Faith, the Batts, Julie, Phyllis, the Jacksons, Mema, Janet, Beverly, and Beth;

My friends from childhood who have become part of my life again;

My sisters, Pam, Martha, and Mary;

All those named and unnamed, who have supported me with their prayers and thoughts;

And finally, my parents, Bassett and Anita, who successfully established a bond with their children. Regretfully, my mother died before this study was completed.

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CHAPTER 1

INTRODUCTION

The development of early patterns of mother-infant attachment are critical for the survival of the infant. Indeed, the nature of the relationship formed determines the success or failure of the infant's emotional development and how he will later cope with social stresses.

Establishing this relationship is also important to the development of early mothering patterns. The establishment of this relationship is often delayed, however, when the mother is biologically, emotionally, and socially immature. Unfortunately, there has been an increasing number of these young women who face motherhood prematurely, often before their own nurturing needs have been satisfied. Statistics published in 1975 by the United States Department of Health, Education, and Welfare indicated that in 1970 there were 656,460 infants born to young women under 18 years of age with an annual increase since this time of approximately 3,000. The young mother and her infant exhibit a greater incidence of morbidity and mortality. The young mother also faces greater economic, educational, and emotional problems.

These factors often interfere with the young mother's willingness and capability for responsible motherhood. Because of the frequency of such cases, many researchers consider the needs of the adolescent mother and her infant to constitute one of today's most urgent health and social problems.

There is no clearly established age that a young person is likely to attain social, emotional, and cognitive maturity; nevertheless, when one becomes a mother the assumption is made that she has achieved a certain degree of maturity. Usually when the individual becomes biologically mature he is able to conceptualize at an abstract level; however, there is the individual who may never achieve a level of deductive reasoning and conceptualization indicative of mature thought processes. Physical maturity develops much earlier than emotional and social maturity and most often before acceptance and incorporation of one's own body image and sexual identity. Thus, the young mother will have various levels of emotional maturity and cognitive ability available for the task of mothering.

Researchers have determined that the mother generally responds to her infant in a predictable manner with a predictable pattern of tactile and affiliative behaviors.

In addition, certain prenatal and postnatal factors have been identified that seem to influence the development of mothering behaviors. Most of the studies on maternal-infant attachment have focused on the older mother and the process by which she becomes attached to her infant. The attachment behaviors of the adolescent mother must be identified to determine if they are different from those attachment behaviors of her older counterpart.

Problem of Study

The problem of this study was to investigate and determine if there were differences in the maternal attachment behaviors exhibited by the 12-16-year-old primipara when compared to the maternal attachment behaviors exhibited by the 20-24-year-old primipara toward the newborn infant.

Justification of Problem

The relationship between mother and child persists throughout the lifetime of each. For the mother, the relationship often serves as a maturation factor in her life. For the child, the relationship is a crucial factor because his continued existence depends largely on the quality and quantity of care that he receives.

Steele and Pollock (1968) described the tasks, responsibilities, and attitudes that constitute this care as the "mothering function", a process by which an adult (a mature, capable, self-sufficient person) assumes the care of an infant (a helpless, dependent, immature person). According to Steele and Pollock (1968), mothering is composed of two components: physical care-taking and emotional factors. The physical caretaking activities include "feeding, holding, clothing, and cleaning the infant, protecting it from harm and providing motility for it" (p. 113). The second component of mothering includes attitudes of tenderness and concern for the child's needs and desires. Clark (1979) defined mothering as the acts of tender, warm behavior exhibited in the interest of the child and added that mothering included the ability to love unconditionally.

This process has also been described as attachment, bonding, tie, affection, and dependency. Ainsworth (1969) described the process as that of attachment formation, the basis for a positive mother-infant relationship. Such a relationship Ainsworth (1969) characterized as a discriminating and specific affectional tie that one person formed to another specific person, thus binding them in space and enduring over time. The

author further described attachment as a reciprocal relationship that implied excitation of each member. Mercer (1977) defined attachment as the affectional and emotional commitment that one individual has to another that is facilitated by positive feedback to each individual through a mutually satisfying interactive experience.

Fromm (1956) equated attachment with love.

> While we find love, or rather, the equivalent of love, in animals, their attachments are mainly a part of their instinctual equipment; only remnants of this instinctual equipment can be seen operating. . . . Man can only go forward by developing his reason, by finding a new harmony, a human one, instead of the prehuman harmony which is irretrievably lost. (p. 6)

According to Fromm (1956) attachment is a complex affectional bond that is a more or less culturally determined, learned behavior that develops over time.

Specific maternal behaviors related to attachment have been determined to be significant to the formation of the mother-infant relationship (Brody, 1956; Klaus & Kennell, 1976; Rubin, 1961). These behaviors include eye-to-eye contact, touch, verbal identification, and holding position for the infant. These behaviors should change gradually as the mother becomes more personally involved with her infant (Rubin, 1967). Robson and Moss

(1970) determined that the release of maternal feelings appeared to depend largely on the infant's capacity to exhibit behaviors characteristic of adult forms of social communication.

Pregnancy, labor, and birth are critical periods in the development of mothering behavior. During pregnancy and often before conception occurs, many women hold preconceived notions of the "ideal or fantasy infant" (Rubin, 1972). At birth, this "fantasy" infant becomes the real infant, and the degree to which the dream infant is perceived to resemble the real infant may well influence the acceptance process (Clark, 1979). The labor process also affects the primary attachment of the mother to her infant. Immediately following delivery, the mother may be particularly vulnerable with respect to forming maternal attachment because of increased dependency needs (Rubin, 1967).

Klaus and Kennell (1976) determined that contact between the mother and her infant in the early postpartal period influenced the development of mothering behavior. Mercer (1977) determined that this sensitive period does not continue automatically and intuitively for the human mother and could be interrupted by several factors. One of these factors, stated Mercer (1977) may be the social,

cognitive, and emotional immaturity of the mother. Mercer (1977) determined that the immature mother has more difficulty placing the needs of another before her own, considering options from another's viewpoint, and acquiescing to a demanding infant while postponing her own desires. Those factors which delay the establishment of the mother-infant relationship are considered as threatening to the quantity and quality of the infant's life (Mercer, 1977).

Although nurses are often able to identify mothers who react passively, or negatively toward their newborn infants, the nurses' observations may be based on intuition rather than on a systematic assessment of behaviors based on scientific theory and practice. Nurses need to recognize the attachment process and assess maternal behaviors to identify and reduce potential maladaptive mother-infant relationships. The early assessment, detection of deviations, and therapeutic intervention of families with maladaptive maternal behaviors may be important factors in the prevention of child abuse, mental illness, and many psychosomatic and learning disorders.

Theoretical Framework

The current use of the term attachment in the psychological literature stems from Bowlby (1953), who strongly influenced continuing research in this area. The author maintained that there must be a warm, intimate, and continuous relationship that is mutually satisfying between a mother and her infant in order to prevent mental illness. In studying interpersonal relationships, Bowlby (1969) formulated a biological approach, a theory based on ethological principles. In his original thesis, Bowlby (1953) described the infant's attachment to his mother as successively stemming from a number of species-characteristic behavior systems which are initially independent of each other, emerge at different times, and become centered around the mother as the chief object, thus binding the child to the mother and the mother to the child.

Bowlby (1969) determined that infancy was the crucial period during which attachment behavior emerged and described the effect of infant behavior upon the development of maternal behaviors. Attachment was viewed as developing out of the interaction between those innate infant behaviors such as crying, sucking, smiling, clinging, and following and the maternal responses that

they released (Bowlby, 1969). Other investigators (Brody, 1956; Klaus & Kennell, 1976; Rubin, 1961) suggested that the maternal responses significant to the formation to the mother-infant relationship were visual, tactile, and verbal contact and holding position of the infant. According to Rubin (1967) and Klaus and Kennell (1976), as the mother responds to her infant, she becomes acquainted and more comfortable with him. The mother then progresses to the communication and caretaking activities of the mothering process. The mother must be able to perceive, understand, and sensitively respond to and care for her newborn infant.

The mother-infant relationship provides the framework for the infant's growth and development--physiological, psychological, and social. During the child's early period of attachment to his mother, he learns by her responses whether or not she loves him and whether or not he can trust her (Erikson, 1963). According to the author, if a child can have his needs satisfactorily met by his mother in a consistent manner, he will begin to develop a trust in her that will reflect an initial trust in himself that will, in turn, apply to the other significant people in his life. By having a trusting and loving

relationship with his mother, the individual may begin to define his own self-worth (Erikson, 1963).

The development of the personality, postulated Erikson (1963), evolves as the child reacts to his changing body and to his environment. The author described predictable age-related stages during which specific changes were assumed to take place. His theory evolved from both the psychosexual influences of Freud and the cultural influences of the individual and emphasized a healthy personality as opposed to a pathologic approach. The author also identified eight stages of psychosocial development that occur during the individual's life cycle, each occurring at a particular age with a specific developmental task to be resolved during each stage. In his theory, Erikson (1963) focused on the epigenesis of the ego which is characterized by an orderly sequence of development at these particular stages. Successful completion of each stage was determined by the author to be dependent on the satisfactory completion of the previous stage.

Each stage as described by Erikson (1963) possesses two components--the favorable and unfavorable aspects of the developmental task; moreover, progression to the

successive stage is dependent on resolution of this task. No task is ever solved in its entirety; each new situation presents the conflict in a different form.

Each achieved stage involves a developmental turning point, a crucial period of vulnerability, and heightened potential during which the individual either increases his emotional health or becomes maladjusted. A crisis to Erikson (1963) represented the developmental aspects of the individual, and was not viewed as a catastrophic threat. Crisis, then, is regarded as a normal and expected occurrence in the process of the individual's psychosocial development, i.e., puberty, marriage, parenthood are viewed as developmental periods of increased susceptibility to crisis.

Erikson's (1963) description of the developmental tasks to be resolved during the eight stages of personality development provided distinctive goals with lasting outcomes once the levels had been successfully attained. For example, the task to be completed during the period of adolescence (12-18 years) is that of identity. This developmental stage is characterized by rapid and marked physical changes. Previous trust in the child's body becomes jarred, and he becomes overly preoccupied with how he appears to others as opposed to his own self-concept.

The adolescent struggles to discover his identity within peer bounds, to integrate his concepts and values within societal bounds, and to make decisions regarding his future career. Unsuccessful resolution of this stage results in identity confusion (Erikson, 1968).

The task to be completed in early adulthood is that of intimacy. In this stage the individual builds a sense of intimacy on a sense of identity. He has the capacity to develop an intimate love relationship with another individual as well as intimate interpersonal relationships with friends and others of significance. If the individual does not resolve this stage, he feels isolated and alone while successful resolution results in affiliation and love (Erikson, 1963).

In young middle adulthood the task to be completed is that of generativity (Erikson, 1963). During this stage, one produces and cares for the next generation. This developmental level is characterized by the nurturance of one's own child or the child of another union. The individual who has successfully mastered the previous developmental stage of intimacy will move into the generativity stage with confidence. If the individual is unsuccessful in resolving this stage, he becomes self-absorbed and stagnant instead of a caring individual.

The adult's failure to master the situation becomes one factor in disturbed family relationships and has a significant impact on a child's physical and emotional well-being (Erikson, 1963).

Assumptions

The following assumptions were made for the purpose of this study:

1. Motherhood is a developmental crisis.
2. Adolescence is a developmental crisis.
3. Maternal behavior is influenced by infant behavior.
4. Infant behavior is influenced by maternal behavior.
5. The mother is a base of emotional and biologic security for the infant.
6. A sensitive period exists during the early post-partal period for both the mother and the infant.
7. Maternal attachment behaviors are observable, such as talking, touching, inspection, smiling, eye-to-eye contact, holding infant "en face," and enfolding.

Hypothesis

The following null hypothesis was deemed pertinent to this study:

There will be no significant difference in the average maternal attachment score of 12-16-year-old primiparas compared to the average score of 20-24-year-old primiparas as observed at mother-newborn interaction during a scheduled infant feeding period.

Definition of Terms

For the purpose of this study and for clarification of terminology, a number of definitions were established.

Maternal attachment--the extent to which a mother perceives her infant as occupying an essential position in her life.

Maternal attachment behaviors--those observable behaviors exhibited by the mother as she responds to her infant during communication and caretaking activities, such as, observing infant's appearance and behaviors, identifying infant's physical condition, perceiving the infant as another human being, including the infant in the family, talking to the infant, establishing eye contact with the infant, demonstrating physical closeness with the infant, changing behaviors in response to the infant's behavior, recognizing the infant's needs and providing appropriate care, planning for ways to care

for the infant at home, exhibiting perception of infant and of self.

Newborn infant--a child of either sex from birth to 1 week of age.

Primipara--a person who becomes a mother for the first time from ages 12-16 years and 20-24 years.

Limitations

The following limitations were recognized for the purposes of this study:

1. The presence of an observer may have altered the normal state of maternal attachment behavior.

2. The lack of privacy may have altered the normal state of maternal attachment behavior.

3. The health status of the mother may have influenced maternal attachment behavior.

4. The health status of the infant may have influenced maternal attachment behavior.

5. The size of sample may not have been sufficient to generalize the maternal behavior of the general population.

Summary

Successful establishment of the mother-infant relationship has been determined necessary for the

physiological, psychological, and social growth and development of the child. In establishing this relationship, the mother has been observed to respond to her infant in a predictable manner with a predictable pattern of behaviors. The nurse can use her knowledge of maternal attachment behaviors based on scientific theory and practice to systematically assess mothering patterns and etermine whether they are adaptive or maladaptive. Any factor, such as the social, emotional, or cognitive immaturity of the mother, which inhibits adaptive behavior in the establishment of the mother-infant relationship is viewed as threatening to the quality and quantity of the infant's life. With the rapidly increasing number of pregnant adolescents each year, the immaturity of the mother has become a growing concern for health care professionals. This study was directed towards the mother-infant interactions between 12-16-year-old primiparas as compared to 20-24-year-old primiparas.

CHAPTER 2

REVIEW OF LITERATURE

This study focused on the attachment behaviors of the young adolescent and the young adult mother towards the newborn infant. Review of the literature germane to this study was directed towards the development of maternal attachment and the factors which influence this process, the epxected maternal attachment behaviors, the development of the adolescent and the adolescent mother.

Development of Maternal Attachment

Since the studies of Spitz (1945) and Bowlby (1953) health care professionals have been concerned with mother-infant interactional patterns. The early studies of mother-infant interaction focused on the process by which the infant becomes attached to his mother (Ainsworth, 1969; Bowlby, 1953; Spitz & Cobliner, 1965). Only within recent years has the mother's role in the formation of the mother-infant relationship been studied (Klaus & Kennell, 1976; Rubin, 1967).

Because the infant is totally dependent upon his mother for all his physical and emotional needs, the

attachment ties may well determine his survival and optimal development (Klaus & Kennell, 1976). Although the actual process is unknown by which mother-infant attachment bonds are formed, the authors have postulated that there are certain periods which are probably crucial to the formation of attachment. The periods are planning the pregnancy, confirming the pregnancy, fetal movement, birth, seeing the infant, touching the infant, and caretaking (Klaus & Kennell, 1976). Klaus and Kennell (1970) stated that the manner in which a mother cares for her infant

> . . . is derived from a complex mixture made up of her endowment or genetics, the way the baby responds to her, a long history of interpersonal relations with her own family, past experiences with this or other pregnancies, and absorption of the values and practices of her culture. (p. 1015)

Benedek (1950) described the parent-child relationship as being mutually rewarding and fundamental to the individual's development of a feeling of confidence in the expectations that others would be willing to help and that he is worth helping. Erikson's (1963) concept of basic trust is similar to this. The author postulated that the relationship formed between mother and infant is the basis for the adult's eventual relationships with others and his ability to seek help from others, i.e., the

individual who develops basic trust tends to be more social and able to seek and accept assistance from others. In contrast, the individual who develops a sense of mistrust, tends to be alienated and isolated (Erikson, 1963).

Brody (1956) stated that in the first years of the infant's life the mother actively provides many passive satisfactions to the child, and is perceived as having the power to grant or withhold all the pleasures that the child can imagine to be crucial. If a child can have his needs satisfactorily met by his mother in a consistent manner, he will begin to develop a trust in her that will reflect an initial trust in himself that will, in turn, apply to the other significant people in his life. If the child cannot develop a trusting relationship with his mother, his self-concept may be limited, and his ability to maintain trust in himself and in others will become increasingly difficult. By having a trusting and loving relationship with his mother, he may begin to define his own self-worth.

Others have suggested that the ability to mother begins during childhood and is related to the kind of identification a woman has had with her own mother (Deutsch, 1944). Benedek (1970) postulated that there is

a psychologic source available for the ability to mother that is synonymous with personality and that this emotional quality develops under environmental and cultural influences. The memory of how the individual was parented surges up when a baby is born and influences that individual's own parenting behavior.

Antepartum Factors

Pregnancy itself influences maternal attachment behavior. Many have described an intrapsychic disequilibrium during pregnancy which precedes a reorganization of cognitive processes and life-style that enables the woman to integrate her role as the mother of her new infant. Bibring (1959) viewed pregnancy as a developmental task and a period of crisis. Winnicott (1965) described this period as primary maternal preoccupation; the time when the mother would be able and willing to drain interest from herself to her infant. Rubin (1970) described a cognitive style of pregnancy, one of inconclusive questioning and uncertainty, when the now of pregnancy became a reality. Colman and Colman (1971) spoke of an altered state of consciousness. Regardless of how the period has been described, pregnancy is a time when a woman has been observed to reorient her life so

that she may form a unique relationship with her infant. Disorders in this relationship may occur when the mother's self-interests are too compulsive to be abandoned, so that she is incapable of establishing a relationship with the infant (Winnicott, 1965).

Kennedy (1973) observed factors which might affect the maternal-infant attachment process: physical and emotional discomforts; financial status; alteration of future plans; deprivations of food, clothing, activity, or sleep; threatened loss of husband's love; fears and worries about the fetus, about one's adequacy as a mother, or about labor and delivery; and social isolation. Planned pregnancy could be viewed as a praiseworthy accomplishment or as ego-building. Conversely, unplanned or unwanted pregnancy could be viewed as being a mistake and as ego-deflating in consequence. Mercer (1977) discovered that the social, emotional, and cognitive immaturity of the individual could also exert a negative influence on the maternal-infant attachment process.

Bibring (1959), in describing the behavioral changes that occur during pregnancy, characterized the first task of mothering as occurring in the early weeks of gestation when the mother would accept the growing fetus as an integral part of herself. When the woman perceived fetal

movement, she would begin to consider the developing infant as a separate individual and would gradually prepare psychologically for delivery and anatomic separation (Bibring, 1959). If a medical problem threatened the health or survival of the fetus or the mother during this period, the mother's planning for the infant and the subsequent attachment process would be retarded (Klaus & Kennell, 1970). Kennell, Slyter, and Klaus (1970), in a study of mothers who had lost their newborns, determined that attachment was experienced during pregnancy and hypothesized that the mothers would not have mourned the loss of their infants if there had been no attachment.

Rubin (1967) reported that as fetal movement was perceived, the woman experienced accelerated fantasies about the infant. The mother would imagine her unborn child's appearance, pattern of behavior, expected accomplishments, and effect of the infant of her life-style. How closely the dream child resembled the real child would influence the acceptance process.

Intrapartum Factors

The experiences during labor and delivery which seem to have an influence on the development of attachment are

number of hours and difficulty of labor, place of delivery, analgesia and anesthesia administered, obstetrical intervention, the mother's body performance, and her self-control (Clark, 1979). Newton and Newton (1962) noted that the mothers who were most likely to be accepting and pleased with their newborn infants at first sight were those who stayed calm and relaxed in labor, cooperated with their attendants, received more solicitous care, and had good rapport with their attendants. Robson and Moss (1970) reported from a study of 54 primiparous mothers during labor and delivery that the mothers aimed at completing the task at hand as quickly and painlessly as possible, and if they had thoughts of the infant, it was with concern about their physical well-being.

Postpartum Factors

Klaus and Kennell (1976) and Barnett, Leiderman, Grobstein, and Klaus (1970) proposed that the early newborn period may be a critical time for the development of maternal attachment. First, there is a sensitive period during the early hours and days after birth during which the maternal-infant interaction has the potential for being a heightened experience. In the first hour

after delivery, mothers need to see, touch, hold, fondle, and suckle their infants. If given the opportunity, mothers will continue to observe, touch, hold, and fondle their infants for long periods of time, thus building the relationship between them. In a study by Klaus, Jerauld, Kreger, McAlpine, Steffa, and Kennell (1972), mothers who had their infants in this first hour after delivery and for 5 extra hours on each of the following 3 days demonstrated more soothing behaviors, were more reluctant to leave their infants, and displayed more en face behavior than the other group of mothers who received the traditional hospital treatment.

Second, early physical contact allows the mother to see, smell, touch, explore, and inspect her infant and thereby begin a reality-based verification of her infant's existence. The first exploring touches, the struggle to achieve and maintain eye contact, and the sorting out of individual characteristics are all part of the process the mother experiences. The sooner these events occur in the mother-infant relationship, the sooner the mother is able to identify and accept her infant's unique and individual characteristics. The identification and acceptance of these characteristics permit congruency of

definitions as the fantasized child of pregnancy is relinquished for the child of reality (Clark, 1979; Rubin 1972).

Barnett et al. (1970) determined that separation of the mother and infant in the neonatal period may not permit the mother to develop an attachment to her infant at the time when she is most sensitized to be responsible to him. In a study of 41 mothers of premature infants who were allowed to handle and feed their infants and 16 mothers who were not allowed to participate in these activities, Barnett et al. (1970) found that the mothers who were denied participation experienced a long period of severe deprivation, were less responsive to the infant, and unable to assume responsibility for his care. Seashore, Leifer, Barnett, and Leiderman (1973) suggested that the mother who is separated from her premature infant for as little time as 3 weeks in the immediate postpartum period can experience lowered feelings of maternal competency and decreased maternal attachment sometimes lasting as long as 1 month following reunion of mother and infant.

Infant's Influence

The infant's ability to precipitate and encourage maternal attachment behavior as early as the first day of life has been demonstrated. The infant has been found capable of responding selectively to variations in auditory, tactile, and olfactory stimuli during this time. He is also able to establish eye contact with his mother immediately after birth (Oremland & Oremland, 1973). In addition, Condon and Sander (1974) demonstrated that the newborn infant synchronizes his movements with the articulatory segments of adult speech. The infant is capable not only of responding to stimuli and participating in interactions, but also of initiating the interactions themselves (Klaus & Kennell, 1976).

The newborn infant has the potential for influencing and shaping his environment, particularly his interaction with significant others (Bowlby, 1953). The docile, passive infant will probably receive less attention and stimulation than will an alert, active infant.

Stone and Church (1975) also mentioned the infant's role in providing a "stimulus" for maternal-infant interaction:

> How babies get treated by their parents is in some measure a product of the baby's own qualities, actual or perceived. We have

> assumed too easily that caretaking patterns spring directly from parental personalities forgetting the extent to which the baby as a stimulus regulated his parents. (p. 110)

Barnard (1974) demonstrated that by instruction of parents in the unique characteristics of their infant, a more positive attitude toward the infant can be developed, that the infant will demonstrate less feeding and sleeping problems, and that there will be a consequently higher level of activity and alertness in the infant.

Maternal Attachment Behaviors

Cropley (1979) described "observing the infant's appearance" as spending time looking at the baby, other than when providing care; inspecting head, trunk, and extremities; partially unwrapping baby to observe body features; and commenting on baby's features, e.g., size, sex, and hair. Such factors as size, body build, sex, and general health have the potential for fulfilling the expectations of the mother. The first impressions created are basic to the formation of a positive or negative attachment towards the infant (Kennedy, 1973).

Robson and Moss (1970) and Rubin (1972) each described a process initiated at birth and continuing for a considerable period of time, in which fantasies of the

infant which occurred during the pregnancy, give way to the conscious awareness of the infant in reality. During the process, the mother attempts to gain knowledge of her infant's appearance, behavior, physical intactness, and state of health.

The task of "observing the infant's behaviors" has been described by Cropley (1979) as talking to or smiling in response to the infant's movements; commenting on baby's behavior, e.g., opening eyes, grasping with hand; and commenting on infant's bodily functions, e.g., wetting, sucking, and burping. These are also identifying behaviors as described by Robson and Moss (1970) and Rubin (1972) of observing and inquiring about the infant in order to gain knowledge of the infant's appearance, wholeness, and state of function.

Cropley (1979) described "identification of the infant's physical condition" as the mother making realistic statements about the infant's condition and asking questions about the infant's condition. These indicators are also identifying behaviors described by Robson and Moss (1970) and Rubin (1970) as the mother seeks information of her infant's appearance, behavior, physical intactness, and state of health.

The indicators within the task of "seeing the infant as another human being" are selecting a name for the baby, using name when talking to or about baby, and associating the infant's characteristics with human characteristics (Cropley, 1979). Robson and Moss (1970) and Rubin (1972) described the process of locating and identifying the infant as the mother attempts to incorporate her infant within the sphere of her immediate and significant social system. This is accomplished by a series of associations with significant others. A mother's image of her infant as a composite of representations of self and of other people whom she knows, loves, and resides with, helps her achieve a sense of knowing her child.

Cropley (1979) described "including infant in the family" as attempting to associate infant's characteristics with those of other family members. This indicator is also a locating and identifying behavior as described by Robson and Moss (1970) and Rubin (1972).

Talking to the infant is considered an important modality of interaction between mother and infant. Cropley (1979) described this task as talking or singing to the infant. Sensitivity to sound is well developed in the newborn. Hearing the human voice brings reassurance to the infant (Clark, 1979). Condon and Sander (1974)

demonstrated that the newborn synchronized his movements with the articulatory segments of the human voice. Klaus and Kennell (1976) noted verbalization of the mother in initiating the mother-infant interaction.

Eye-to-eye contact between mother and infant appears to facilitate the development of attachment. Klaus, Kennell, Plumb, and Zuehlke (1970) reported that mothers remarked that they felt much closer to their infants once their infant had looked at them. Robson (1967) also demonstrated the importance of eye-to-eye contact in establishing the mother-infant interaction. The en face position is defined by Klaus and Kennell (1976) as occurring when the mother's face is rotated so that her eyes and those of the infant meet fully in the same vertical plane. Cropley (1979) described the task of "establishing eye contact" as using en face position, changing position or that of infant to establish eye contact, and stimulating infant to open eyes.

Klaus and Kennell (1976), Rubin (1963), and Clark (1979) described an orderly progression of tactile behavior as the mother first interacts with her infant. The mother begins touching with her fingertips on the infant's extremities, proceeds to massage the infant's trunk with her palm and later brings the infant close

to her own body as she enfolds him. The activity changes from an exploratory kind of touching to a warm acceptance. Cropley's (1979) description of the task of "demonstrating physical closeness" is reaching for infant, using fingertips on head and extremities, using palms on infant's trunk, and enfolding infant in arms and holding against mother's body.

Gentle movement, firm holding, frequent changes of position, and rocking are important in the development of a sense of security in the infant (Clark, 1979). Establishing a sense of trust in the first relationship determines how the individual will establish future relationships (Brody 1956; Erikson, 1963). The human voice is also important in bringing reassurance to the infant (Clark, 1979).

"Changing behaviors in response to the infant's behavior" is a task to be accomplished by mothers through soothing behaviors, discontinuance of behaviors which distress the infant, establishing eye contact and talking to infant, and meeting the infant's needs prior to her own (Cropley, 1979). Placing another's needs before one's own is considered indicative of the mother's emotional and psychological maturity (Deutsch, 1944).

In studying maternal behavior of mothers with normal full-term infants, Rubin (1963) noted a rapid progression during the first few postpartum days of mothers' interactions with their infants. The author described mothers moving from a phase involving discovery and identification of the infant to involving themselves in the infants' maintenance and care. Cropley (1979) determined that the caretaking phase of "recognizing the infant's needs and providing appropriate care" could be described as the mother readily participating in care when asked. The other indicators that Cropley (1979) described within this task are recognizing baby's needs and attempting to meet them and handling baby in a manner which is comfortable for infant, e.g., handling with smooth rather than jerky movements.

During the antenatal period, especially in the second and third trimesters, there is usually outward evidence of nestbuilding or preparing for the infant outside of self, such as buying infant clothing or preparing the infant's room (Rubin, 1972). Cropley (1979) described this attachment task as "plans for ways to care for infant at home". The indicators within this task have been described as obtaining basic supplies for infant's care (prior to infant's discharge); asking questions about

care, e.g., feeding schedule, formula preparation, cord care, etc.; and making plans for well baby care. This task is also related to Rubin's (1963) description of the mother moving from the discovery and identification phase into the caretaking phase of infant care.

"Perception of infant" and "perception of self", as described by Cropley (1979) are important to the attachment process. At the time of birth, the mother is confronted with the reality of her newborn which she must reconcile with the fantasy of the infant that she had expected. How closely the fantasy infant resembles the real infant will influence the attachment process. If the mother likes what she sees in her infant, her own self-esteem is increased. A successful relationship with her infant builds the mother's self-image and contributes to a better acceptance of herself (Rubin, 1961). The mother's perception of her infant's appearance and behavior determines how she will relate to her infant. The infant's behavior will, in turn, be affected by her handling of him (Broussard & Hartner, 1971). Broussard and Hartner (1971) determined from their longitudinal study of mothers and their first-borns that the mother's perception of her first-born changed during the infant's first month of life and that many of the mothers did not

view their 1-month-old infants positively. Assessment of the mother-infant interaction in the immediate postpartum period and at 1 month of age would be a more predictive indicator of subsequent development. The authors also determined that mothers who had a negative perception of their infant also tended to experience more depression, irritability, and anxiety symptoms (Broussard & Hartner, 1971).

In a study of adolescent mothers, Mercer (1977) discovered that neonatal perception was predictive of mothering patterns observed during a 1-year period. If the adolescent mother rated her infant negatively, either the infant did not receive adequate nurturing or the mother experienced difficulty with the maternal role.

Cropley (1979) described "perception of infant" as comments about baby are predominantly positive and smiles frequently when looking at, talking to, or about baby. "Perception of self" was described as comments about self are predominantly positive and expressing satisfaction with mothering role. Mercer (1977) determined that if the young woman was pleased with her performance in giving birth and in seeing a healthy, normal infant, then she would have increased self-esteem immediately postpartum.

Kennedy (1973) described a positive interaction between mother and infant as she discovered what her infant was actually like and was able to initiate and maintain a generally positive feeling toward him. In a study of the early acquaintance process of 10 normal mother and infant couples during the first 2 weeks, some mothers experienced the acquaintance process as negative and distressful, while others developed a generally positive, enjoyable, problem-free relationship with their infants. When the mother was able to perceive her infant's attitude toward her as positive, she felt positive towards him and furthermore, was encouraged and able to acquire more information about him through observation and interaction. The mother who experienced a negative acquaintance process had acquired less realistic information about her infant and had developed a progressively more negative attitude toward him (Kennedy, 1973).

Adolescence

During adolescence, the individual strives to complete his biological maturation, develop a self-identity, determine his sexual identity, attain independence and separation from his parents, develop a personal value system, choose a vocation, and make a

commitment to life's work (Calderone, 1966; Erikson, 1968). In the crisis of adolescence, the many stresses of sexual and aggressive drives with biological and psychological changes, the resolution of oedipal and dependency relationships with parents, the search for values, and self and sexual identity create anxiety and confusion (LaBarre, 1972).

With the physical and physiological maturation and concomitant increase in body size, the youth must interalize new urges and drives as well as adapt to the larger structure in which his psyche resides, a process which, according to Mercer (1977), takes time. The adolescent's psyche is in a state of diseqilibrium in many respects. The disequilibrium or disorganization is a prerequisite to the organization of a newly emerging person. The youth may not have resolved earlier developmental conflicts relative to trust versus mistrust, autonomy versus shame or doubt, initiative versus guilt, or industry versus inferiority (Erikson, 1963). In feeling either mistrust, shame, guilt, or inferiority, he attempts to cope with and resolve these feelings while acquiring his self-identity (Erikson, 1963). Old defenses and coping methods may be threatened and prove inadequate (LaBarre, 1972).

In early adolescence, the individual is fond of or prefers same-sex peers, while toward the end of adolescence the individual becomes oriented toward members of the opposite sex. Erikson (1968) maintained that the oedipal conflict re-emerges for the adolescent on an even more frightening level, for at this time it is accompanied by stronger, more mature biological urges. The adolescent usually resolves this dilemma by identifying with the parent of the same sex, rejecting the opposite-sex parent as a love object, and seeking a safe heterosexual relationship with a peer.

The adolescent moves from the method of concrete-level thinking to conceptualization and to problem-solving from the abstract. He is then able to relate his ideas and to follow logic in his reasoning (Piaget, 1969). Although some individuals never attain this higher level of reasoning, adolescence is recognized as the time of its emergence. The major adolescent role, that of the student preparing for a career, is facilitated by his cognitive development.

During this transition period, the adolescent faces conflict as he identifies with the same-sex parent whom he must also reject in order to sever his childlike dependency; gradually, he becomes an independent

person in his own right. Ego maturation occurs as earlier childhood conflicts re-emerge and are resolved (Blos, 1962).

The Adolescent Mother

Parenthood can provide an additional opportunity for personality development to continue throughout the individual's life-time. As the mother's child reaches a particular maturational phase, for example, conflicts that the mother had experienced during that phase re-emerge; thus, another opportunity arises for the mother to attempt a resolution of these earlier conflicts (Benedek, 1970). This process of ego maturation occurs through regression in the development of motherhood as in the development of adolescence.

In the beginning, the mother-daughter relationship is symbiotic, in which the fetus and eventually the infant has a warm, continuous, intimate relationship with the mother. Later, the girl develops an object relationship with her mother. During adolescence, the cyclic bodily activities related to menstruation cause changes in feelings and attitudes and the young girl internalizes concepts of femininity and childbearing. In this phase, it is important that the girl develop positive feelings

toward her own feminine sexuality and its functions if she is to successfully pursue the course of motherhood (Clark, 1979).

A certain amount of emotional and psychological maturity is assumed for a mother to be able to place her own needs and desires as secondary to her infant's immediate, primary needs and requirements (Deutsch, 1944). Depending upon the successful resolution of tasks at earlier developmental levels, parents may or may not possess this maturity at the birth of their children. A pregnant adolescent, for instance, is faced with performing not only the adult role of wife if she is married or chooses to be married, but also the role of mother if she chooses to rear her child. She may continue her adolescent role as a student as well. The child's birth could conceivably accelerate maturational tasks if the mother has achieved the level of cognitive functioning and emotional emphatic sensitivity necessary to perceive an infant's cues. Becoming a mother herself may accelerate the young woman's identification with her own mother, and the intrapsychic disequilibrium of both adolescence and motherhood may enhance personality maturation. On the other hand, the complexity of assuming adult roles without

cognitive, emotional, and social maturity can be devastating for both the young mother and her infant (Mercer, 1977).

The young adolescent who has a child and opts to rear that child begins this enormous task of parenthood virtually handicapped. Economically, her earning potential is limited because she may still be attending school in order to achieve career goals. Experientially, she has not been around as long as the older parent, for the purpose of observing and thereby benefiting from the parenting experience. Emotionally, she is more egocentric about her own needs than the older parent, who has been sharing a martial relationship for some years. The very young parent has not learned to delay her own pleasure, bowing to the pleasure of another person, or settling for later gratification. Developmentally, she is trying hard to gain control over the diseqilibrium she is experiencing as an adolescent; the unpredictable, uncontrollable behavior of young infants definitely adds a great number of variables that she cannot control. Cognitively, her decision-making capability in times of stress is not as sophisticated as that of a more mature person, who has had more practice and is able to perceive more viable options (Mercer, 1977).

If the young adolescent has achieved a cognitive level of conceptual thinking and problem solving, she is, for the most part, not consistent in utilizing her newly acquired logic. According to Mercer (1977) the young acolescent is not ready for the necessary decision making or for the responsibility that is involved in parenting. She is most appreciative when her mother assumes this responsibility. She passively enjoys the mothering that she may continue to receive from her own parent. Pregnancy and the resultant infant present the adolescent with an adult, grown-up role that she is not ready to internalize. She does not realize that mothering requires active involvement, decision making, and independent judgments. She may well view the infant as an intruder who takes away from her both time and her own mother; she may react with feelings of hostility toward the infant and show no desire to achieve a peer status with her mother (Mercer, 1977).

Waters (1969) described a "syndrome of failure" which occurs with very young adolescent motherhood. The syndrome of failure includes failure to remain in school, to limit future child-bearing, to establish stable families, to be self-supporting, and to have healthy infants. Without outside aid, this syndrome of

failure is most likely to occur, for a very young mother cannot remain in school without child care help, and she cannot feed and clothe herself and her infant without financial help. Moreover, she cannot avoid successive pregnancies without close countraceptive supervision, love, and support. Mercer (1977) stated that the very young teen-age mother cannot continue to grow emotionally without love while, in turn, her child will not thrive without warm, nurturant mothering.

The young mother who assumes the maternal role cannot anticipate the responsibilities of motherhood before directly experiencing them. Even after the arrival of the baby, the glamour and the initial fuss over a new baby detracts from some the requirements of her newly acquired role. In her new role, she may have inconsistent cognitive abilities to anticipate her infant's needs or to cue into his behaviors and she may find it difficult to delay the gratification of her own needs while satisfying her infant's. The ability to be selfless in caring for another person may not come easily or early for some adolescent parents (Mercer, 1977).

Many new mothers need assistance in locating and becoming acquainted with their infants. Mercer (1977) stated that the young adolescent mother is more in need of

assistance in accomplishing these tasks than the older mother. Negative experiences early in the mother-infant interaction could have a great impact on the young adolescent mother who might perceive her infant's spitting up as rejection of her feeding efforts, or the infant's crying as rejection of her cuddling.

Even though the young adolescent may be developing the ability to use reason and logic in abstract thought, she regresses to earlier thinking patterns in times of stress. For this reason, teaching and interpretation of the infant's needs may require much time and thought for the health care professional. Fortunately, many young mothers possess a natural curiosity and eagerness to learn, observed Mercer (1977).

Mercer (1977) discussed many factors which she found to be detrimental for the young adolescent in the establishment of the mothering role. A negative influence on the adolescent's adaptation of the mothering role is seen in her inability to act independently of her own mother while utilizing her help, at the same time. Too, it seems that the mother of an adolescent must recognize that the young woman is capable of performing in the mothering role before the daughter can make the transition from progeny to parent (Mercer, 1977). LaBarre (1972)

reported that during pregnancy most girls in her study were passively dependent on their mothers, accepted restrictions on their social activities, and perceived the mother's solicitude and protectiveness as both gratifying and supportive. After pregnancy there was a marked change in the girls as they asserted their independence, especially in relation to the mother.

Another detriment to the establishment of the mothering role may be the experience of frequent relocation by the young parents. The move in itself is a great stress. Added to the stress of moving is the loss of contact with babysitters, friends, significant others, and familiar, trusted health professionals. Intensive nursing care is essential for giving new information to the young parent. Follow-up nursing care is difficult because of this mobility (Mercer, 1977).

Lack of access to infant care facilities also places a burden on young parents. In situations where family members cannot or are not available to help with baby-sitting, young parents may be deprived of the opportunity to return to school. One can imagine the levels of frustration and hostility as the young parents see themselves trapped in a situation in which their economic potential is at risk (Mercer, 1977).

All parents regardless of age are handicapped when there is no extended family for needed support. Those most affected by lack of extended family are the immature parents. The opportunity to grow up under the tutelage of watchful and helpful parents and grandparents is an asset, because every parent needs relief from the all encompassing job of parenting in order to function at an optimal level (Mercer, 1977).

Even though studies indicate that mothers adapt to the mothering role best when they receive love and support from their mates (Shereshefsky & Yarrow, 1973), the current social structure and constraints continue to make it more difficult for young couples. Mercer (1977) found that young parents, even though they have a stable relationship, cannot afford to get married because they cannot survive without the money they receive from welfare assistance. A single mother may receive food stamps and welfare assistance, while a young couple attempting to manage on its own is all too often criticized for the manner in which it is attempting to survive (Mercer, 1977).

The young mother may respond to the deprivations forced upon her by employing the coping mechanisms of fantasy and wishes, rationalization, denial, and hostility (Mercer, 1977). The young mother's anger and

hostility is often directed toward her mate, her infant, and others in the immediate environment.

Although there is a lack of information concerning the establishment of a bond between the infant and the adolescent mother, Mercer (1977) listed predictive characteristics of the woman who adapts more easily to the maternal role, who develops in areas other than mothering, and who provides nurturing care for her child. Contributing factors are past experience; caring for and positive feelings about infants; a supportive mate; a mother who acknowledges capabilities and independence; a level of hostility that is not excessive; a cognitive level of functioning that permits recognition and understanding of infant behavior; an emotional level of maturity that is sufficient to enable her to deny her own gratification for the gratification of her infant; and perception that ther infant is above average in comparison to other infants. Not any one factor may prevent the young woman from adapting to the mothering role, but when one of the predictive characterstics (frequently acquired through age and experience) is absent, the young woman is at increased risk in her adaptation. This increased risk imposes additional stress on a young woman who lacks a long history of problem solving from which to draw

experience (Mercer, 1977). Successful mothering, then, may well depend to a great extent on the age which a woman has attained prior to becoming a mother.

Summary

Relevant studies were reviewed concerning the development of maternal attachment. Although the actual process by which the maternal-infant attachment bonds are formed is unknown, there is general consensus that the relationship is reciprocal and is a composite of visual, verbal, and tactile behaviors. Establishment of this attachment bond is necessary for the survival and optimal development of the infant. The studies reviewed for attachment behaviors described the behaviors commonly observed in the mother as she interacts with her infant. In addition to visual, verbal, and tactile behaviors, the behaviors of identifying, locating, and claiming were described. The concepts of self-esteem and perception of the infant were also given some consideration.

Adolescent development, primarily personality, was reviewed. The immaturity of the adolescent mother was considered important to this study. Since there is a lack of information on the attachment process of the adolescent mother, the act of mothering as a whole was considered for

the adolescent. The plight of the adolescent mother and her infant was determined to be at risk.

CHAPTER 3

PROCEDURE FOR COLLECTION AND TREATMENT OF DATA

A descriptive survey was conducted utilizing the Cropley (1979) Observation Guide for Maternal Behaviors. The observational approach was structured and the observer checked the presence or absence of prespecified attachment indicators from Cropley's list while observing the young adolescent mother and her older counterpart as they interacted with their newborn infants during a scheduled infant feeding period. According to Polit and Hungler (1978), direct observation allows for the collection of data that would be impossible to obtain in any other way and too, important descriptive information about behavioral patterns can be made available to scientific researchers through observation.

Setting

The study was conducted on the postpartum units of two large southwestern hospitals located in a metropolitan area with a population of more than one million. The first hospital where the study was conducted is a community and teaching institution primarily serving

clinic patients. The hospital averaged approximately 700 deliveries per month in the past year. Within the three postpartum units there were three to five beds occupying each room. Some of the rooms had curtains that could be drawn for privacy. This setting was chosen for its accessibility to a large adolescent population.

The husband or support person could remain with the mother in the labor room. Usually, the husband would not accompany his wife to the delivery room. The mother was encouraged to touch and hold her infant while in the delivery room and the husband was allowed to visit at any time except during the feeding periods. The average length of time for being in the hospital was 2 to 3 days following delivery. The infants in the study came from the two nurseries housing newborn infants who required only routine care and observation. The infants from these nurseries were taken to the mother for feeding at regularly scheduled times after a stabilization period following delivery. Feeding times for infants to be with their mothers were: 10:00 a.m., 2:00 p.m., 6:00 p.m., and 10:00 p.m. Other feedings were given in the nursery by hospital personnel. Observations of the mother-infant interaction were made in their hospital rooms.

The second hospital was chosen for its accessibility to a young adult population. This hospital averaged over 200 deliveries per month in the past year. The hospital is a religious-affiliated teaching institution primarily serving private patients and some clinic patients. There were 36 beds on the postpartum unit with private and semi-private room accommodations. Curtains could be drawn for privacy in the semi-private rooms. Average length of time in the hospital was 2 to 3 days. When the patient remained awake for delivery, the husband could stay in the labor room and accompany his wife to the delivery room if he had attended prenatal classes and possessed a class participation certificate. The mother was encouraged to touch and hold her infant while in the delivery room.

This second hospital utilized a modified rooming-in approach whereby the infant could remain in the mother's room from 10:00 a.m. until 10:00 p.m. Fathers were allowed to visit at any time. Feeding schedules for infants were 10:00 a.m., 2:00 p.m., 6:00 p.m., and 10:00 p.m. Other feedings were given in the nursery by hospital personnel.

Population and Sample

The sample for this study was chosen from the 12-16-year-old and 20-24-year-old hospitalized primiparous population. Eighteen married or unmarried primiparas from the ages of 12-16 and 18 married or unmarried primiparas from the ages of 20-24 represented a convenience sampling of mothers who were willing to allow this investigator to observe the mother-newborn interaction during a scheduled infant feeding period. The selection of these age groups was made on the basis of information obtained from Mercer (1977), who determined that adolescents under 16 years of age were more biologically, socially, and emotionally immature than the adolescent mother who was older than 16 years of age and certainly more at risk for establishing the mother-infant relationship. The author reasoned that because the mother reorganized her emotional priorities on a cognitive level, the immaturity of the mother would delay the establishment of the mother-infant relationship (Mercer, 1977).

The subjects for this study were mothers for the first time and were able to feed and hold their infants. The infant's condition was stabilized and the infant was able to be taken to his mother for feedings.

In the first hospital described there were predominately families from Mexican-American and Black-American ethnic groups, with some Anglo-American ethnic groups, thus rendering the group culturally diversified. The client population served was predominately from lower and lower-middle socioeconomic groups. The second hospital described served a client population predominately Anglo-American with some Mexican-American and a few Black-Americans. The religious affiliated hospital was utilized by the lower-middle, middle, and upper-middle socioeconomic groups.

Protection of Human Subjects

Before data collection began permission to conduct this study was obtained from the Texas Woman's University Human Subjects Review Committee (Appendix A) and from the clinical agencies from which the subjects were obtained (Appendix B). Participation of subjects was voluntary and written permission was obtained from each individual requested to participate in the study (Appendix C). If the subject was 16 years of age or younger and unmarried, permission was also obtained from the parent and/or guardian (Appendix C). If the subject was younger than 16 years of age and married, she was allowed to sign

the consent form without written consent from her parent and/or guardian. In approaching the potential subject, the investigator introduced herself, explained the purpose of the study, and the reason why the individual was requested to participate (Appendix C). Anonymity and confidentiality of information was guaranteed to each individual as well as their freedom to withdraw participation at any time. Informed consent participation forms were signed and obtained before any of the observations were conducted. Subjects were assured that their withdrawal from the study would in no way affect the care given to them or their infant and that in the event of withdrawal the data obtained would be voided. Questions regarding the study were answered by the investigator before and after observation of the mother-infant interaction.

Instrument

Several authors, such as Brody (1956), Rubin (1961), Robson and Moss (1970), and Klaus and Kennell (1976) identified patterns of tactile and affiliative behaviors manifested by a mother after the birth of her infant. No standardized instrument has been developed, however, to assess maternal attachment behaviors.

The Cropley (1979) Observation Guide for Maternal Behaviors (Appendix D) utilized in this study was designed to measure the mother's identification of the infant behaviors, determination of the infant's place in the social system, modalities of interaction, caretaking behaviors, and perception of infant and self. The instrument was designed for use with mothers of normal full-term infants during the first week after birth. The observation guide's composition of 35 basic maternal behaviors identified as indicators of attachment has a sound theoretical validation of items. The instrument may be utilized by the nurse for a specific short observational period during early mother-infant interaction and at feeding times.

Cropley (1979) determined that the instrument would be especially useful as a screening mechanism to identify mothers exhibiting few attachment indicators who would require additional assessment or immediate interventions. The main disadvantage as seen by the author was that some behaviors would not be equally applicable in all situations, so that several observations would be required; for example, those behaviors requiring interaction with the observer, such as making comments or asking questions, would not be observed if there was a language barrier or

if the mother was shy, young, or intimidated by the hospital environment.

The attachment indicators within the blocks of critical attachment tasks organized by Cropley (1979) in the Observation Guide for Maternal Behaviors are attachment behaviors based upon a theoretical framework stressing visual, verbal, and tactile concepts. Identification and claiming of the infant, as well as perception of self and infant were included in the behavioral concepts. The author determined that in the absence of blocks of behaviors, the observer would identify maladaptive patterns and select the appropriate interventions. The observation guide utilized was a checklist, a simple means of recording: "it was observed" or "it was not observed" (Leedy, 1974, p. 88).

There were 35 possible behaviors to be observed. Each behavior was given a numerical value of 1. The maternal attachment score was determined by the number of observed behaviors out of 35 possible behaviors. Cropley (1979) did not assign a specific number of behaviors to illustrate adaptive or maladaptive maternal attachment but proposed to explore and determine the frequency of maternal behaviors. In addition the mean maternal attachment score for the two groups was

determined. The mother-infant interaction was observed for 20 minutes during a feeding period in the subject's room while utilizing the checklist.

The Cropley (1979) Observation Guide for Maternal Behaviors was a revision of the earlier Cropley, Lester, and Pennington (1976) Maternal Attachment Tool and had not been used previously in the clinical setting. Reliability had not been established for the Cropley (1979) Observation Guide for Maternal Behaviors.

Cropley et al. (1976) used the Maternal Attachment Tool to observe 11 mothers of healthy full-term infants in the first 15 minutes of the mothers' first interaction with their infants. The mean maternal attachment score was 18.5 with a range from 12 to 25. After conducting this study of 11 mothers, the authors determined that provision should be made for "Expression of Affect" and "Comfort in Holding the Baby" (Cropley et al., 1976, p. 27).

During this study of 11 mothers, Cropley et al. (1976) used interobserver technique on four of the mothers in the sample to establish reliability. Each observer had at least one opportunity to simultaneously make observations with each of the other two investigators in the study. Correlation was obtained by determining the

percent of agreement between behaviors noted by the two observers. When neither observer recorded a particular behavior, responses were excluded in the tabulation of behaviors. A mean correlation of .85 was obtained. Cropley et al. (1976) evaluated specific differences in noted observations and determined that two factors were responsible for decreased reliability: the lack of a clear operational definition for each of the behaviors on the assessment tool and the presence of extraneous environmental factors such as staff interference which decreased auditory and visual perception. Cropley (1979) redesigned the instrument with a more specific list of behaviors to be observed. Cropley et al. (1976) recommended that all hospital personnel be informed of the study and that a sign be placed outside the room requiring privacy while the investigator was making the observations.

Construct validity for the Cropley et al. (1976) Maternal Attachment Tool was based on the item derivation from relevant literature and research on maternal attachment. According to Polit and Hungler (1978), the use of a larger sample size with repetitive observations made over a period of time so that predictive validity can be determined can strengthen the validity of the instrument. Concurrent validity could be established if a standardized

tool were available for measuring maternal attachment.

Permission was obtained from the author (Appendix E) and publisher (Appendix F) of the book listing the instrument. The publisher granting permission to use the instrument was the J. B. Lippincott Company.

Code number, date of delivery, date of observation, and total number of maternal behaviors obtained were noted on the checklist. Other data collected and added to the checklist included maternal age, number of pregnancy, and ethnicity (Appendix G).

Data Collection

Permission to conduct this study was obtained from the Texas Woman's University Human Subjects Review Committee (Appendix A) before soliciting participation from the hospitals. Written permission was then obtained from the participating clinical agencies before data collection began (Appendix B).

Pretest

Prior to collection of the main data, the observation checklist was pretested for clarity, research adequacy, and freedom from bias (Polit & Hungler, 1978). The pretest was conducted on three married or unmarried

primiparas between the ages of 12 and 16 years, and three married or unmarried primiparas between the ages of 20 and 24 years. Subjects were approached as they became available, thus representing a convenience sampling.

Subjects were approached to solicit participation in the study. The investigator presented a written and an oral explanation of the proposed study (Appendix C). Additional information collected at this time included age, number of pregnancy, and ethnicity (Appendix G). As necessary, the investigator clarified information questioned by the subject.

Informed consent to act as a subject for research and investigation (Appendix C) was obtained. These forms were signed and witnessed before any observations were made. If the subject was 16 years or younger and unmarried, permission was also obtained from the parent and/or guardian. If the subject was younger than 16 years and married, permission was obtained from the subject. For the subjects who volunteered, an appointment was made for the observation period.

Before the observation, the investigator informed hospital personnel of observation intentions. A privacy

sign was posted outside the room during the observation to lessen the possibility of interruptions.

All subjects were observed on the second postpartum day, thereby placing all women in the same "taking-in" phase (Rubin, 1967) following delivery. Observations were made in the subjects' room for 20 minutes during a scheduled infant feeding period. An observation checklist was utilized.

Results from the observations were critically discussed with individuals knowledgeable about maternal attachment. The individuals consulted were a clinical nurse specialist, a physician, and a maternal and child health educator. The panel of experts determined that the observation checklist was adequate for the purpose of observing for maternal attachment behaviors. No alterations in the checklist or the method of collecting data were deemed necessary. Content validity was established. Because the sample was so small, statistical analysis was not used.

Primary Sample

Thirty-six primiparous women were selected on a convenience basis, i.e., as the women became available and as they were willing to allow the investigator to observe

the mother-infant interaction. Eighteen of the subjects were in the 12-16-year-old group and 18 of the subjects were in the 20-24-year-old group. Conditions and data collection proceeded in like manner as for the pretest.

Treatment of Data

Statistical analysis was utilized to describe and summarize the data collected. The age and ethnicity for each of the groups was summarized using the descriptive statistical measures mean, median, and range. Frequency distribution, percentages, and means were used to analyze behavioral responses or attachment indicators within each critical attachment task. The Chi-square test was used to compare the nominal data between the two independent samples. A table was utilized to show the frequency and percentage of individual maternal attachment behaviors exhibited in both age groups. Of primary importance to this study were the maternal behaviors observed and recorded for the two age categories; the variable of age, then was used to describe the results of these observations and comparisons were made between data generated by the two groups. The Mann-Whitney U test was used on the ordinal data to allow for comparison of the average

maternal attachment score for two independent samples. Nonparametric statistical analysis was used because of the small sample size. A table was utilized to present the descriptive statistics for maternal score in both age groups.

CHAPTER 4

ANALYSIS OF DATA

In order to determine if there were significant differences in the maternal attachment behaviors exhibited by young adolescents (12-16-year-olds) and young adults (20-24-year-olds), a descriptive study was conducted in two large metropolitan hospitals during March, 1980. The investigator utilized Cropley's (1979) Observation Guide for Maternal Behaviors while observing 36 mothers and their newborn infants.

Description of Sample

The sample chosen for this study represented convenience sampling and consisted of 36 hospitalized primiparous mothers with their newborn infants. Eighteen of the mothers were in the 12-16-year-old age group and 18 of the mothers were in the 20-24-year-old age group. Twenty-two potential subjects were approached in the 12-16-year-old group, but only 18 of the group met the criteria for the study. Two of the 22 potential subjects approached in the 12-16-year-old group refused participation. The third potential subject was 16 years old

and had an infant who became ill before the observation could be made. The fourth potential subject of the 22 approached in the 12-16-year-old group placed her infant for adoption. All of the 12-year-olds and most of the 13-year-olds who were in the hospital at the time of the study were ineligible for the study because their infants had been delivered by Cesarean section. Eighteen potential subjects in the 20-24-year-old group who met the criteria for the study were approached for inclusion in the study, and all agreed to participate.

All subjects in both age groups were clinic patients from two large metropolitan hospitals. All subjects were delivered vaginally and able to feed and hold their infants by the second postpartum day in their hospital rooms. All infants of the subjects in both age groups were free of complications and abnormalities. Marital status of the subjects in both groups was not recorded.

Findings

Distribution of race in the 12-16-year-old group was as follows: four White-Americans or 22% of the sample, four Black-Americans or 22%, and 10 Mexican-Americans or 55%. For the 20-24-year-old group there were six White-Americans or 33.3% of the sample, 11 Black-Americans or 61%, and one Mexican-American or 5%.

The mean age for the 12-16-year-old group was 14.38 years, while the mean age for the 20-24-year-old group was 21.72 years. The 12-16-year-old group's ages ranged from 13 to 16. All 12-year-olds, during the time of the study, delivered by Cesarean section and were ineligible for the study. The range of age for the 20-24-year-old group was from 20 to 24. The median age for the 12-16-year-old group was 15 years, while the median age for the 20-24-year-old group was 21 years.

Results for each of the groups on the individual items making up the observation checklist are presented in Table 1. The number of subjects exhibiting individual maternal attachment behaviors are indicated with the percentages for each age group.

Using the Chi-square contingency table analysis for the nominal data, the two age groups were compared for each of the individual behaviors. The level of significance selected was 0.05. Results are shown in Table 1. There were significant differences between the two groups on all but 10 out of 35 individual behaviors.

The ten maternal attachment behaviors with no significant differences were:

1. "Partially unwraps to observe features." Seven out of 18 of the 12-16-year-olds and nine out of 18 of

Table 1

Frequency and Percentage of Individual Maternal Attachment Behaviors Exhibited by Adolescent and Young Adults with Chi-square Analysis and Level of Significance (N = 36)

Behavior	12-16 Age Group (N=18)		20-24 Age Group (N=18)		Chi-square with 1 df	Probability*
Observes Infant's Appearance						
Spends time looking at baby	13	(72%)	18	(100%)	3.72	0.054**
Inspects head, trunk, extremities	2	(11%)	15	(83%)	16.05	<0.001**
Partially unwraps to observe features	7	(38%)	9	(50%)	0.11	0.737
Comments on features (size, sex, etc.)	4	(22%)	13	(72%)	7.13	0.007**
Observes Infant's Behaviors						
Talking or smiling in response to movements	11	(61%)	18	(100%)	6.38	0.012**
Comments on baby's behavior	7	(38%)	15	(83%)	5.73	0.017**
Comments on bodily functions	4	(22%)	10	(55%)	2.92	0.087
Identifies Infant's Physical Condition						
Makes realistic statements about condition	1	(5%)	10	(55%)	8.38	0.004**
Asks questions about condition	1	(5%)	8	(44%)	5.33	0.021**
Sees Infant as Another Human Being						
Selects name for baby	17	(94%)	18	(100%)	0.00	1.000
Uses name when talking to or about infant	2	(11%)	9	(50%)	4.71	0.030**
Associates infant with human characteristics	0	(0%)	2	(11%)	0.53	0.467
Includes Infant in the Family						
Associates infant with family member characteristics	13	(72%)	15	(83%)	0.16	0.688
Talks to Infant						
Talks or sings to infant	4	(22%)	13	(72%)	7.13	0.008**
Establishes Eye Contact						
Uses en face position	8	(44%)	13	(72%)	4.33	0.037**
Changes own or infant's position for eye contact	9	(50%)	17	(94%)	6.78	0.009**
Stimulates infant to open eyes	1	(5%)	2	(11%)	0.00	1.000

Table 1--Continued

Behavior	12-16 Age Group (N=18)	20-24 Age Group (N=18)	Chi-square with 1 df	Probability*
Demonstrates Physical Closeness				
Reaches out to receive infant	18 (100%)	18 (100%)	--	--[a]
Uses fingertips on head and extremities	8 (44%)	18 (100%)	11.22	<0.001**
Uses palms on infant's trunk	4 (22%)	14 (77%)	9.00	0.003**
Enfolds infant and holds against body	9 (50%)	15 (83%)	3.13	0.077
Changes Behaviors in Response to Infant				
Uses soothing behaviors	5 (27%)	15 (83%)	9.11	0.003**
Discontinues behaviors which upset infant	6 (33%)	9 (50%)	0.46	0.499
Makes eye contact and talks ton infant when quiet and alert	5 (27%)	16 (88%)	11.43	<0.001**
Meets infant's need prior to own	8 (44%)	18 (100%)	11.22	<0.001**
Recognizes Infant's Needs and Provides Appropriate Care				
Readily participates in care	18 (100%)	18 (100%)	--	--[a]
Recognizes infant's needs and attempts to fulfill	3 (16%)	11 (61%)	5.73	0.017**
Handles infant with smooth rather than jerky movements	6 (33%)	13 (100%)	15.13	<0.001**
Plans for Ways to Care for Infant at Home				
Has obtained basic supplies for infant care	0 (0%)	18 (100%)	32.11	<0.001**
Asks questions about care	2 (11%)	16 (88%)	18.78	<0.001**
Plans for well baby care	0 (0%)	17 (94%)	18.53	<0.001**
Perception of Infant				
Positive comments about infant	11 (61%)	18 (100%)	6.38	0.012**
Frequent smiles when looking or talking about infant	10 (55%)	18 (100%)	7.88	0.005**
Perception of Self				
Positive comments about self	12 (66%)	18 (100%)	5.00	0.025**
Satisfaction with mothering role	11 (61%)	18 (100%)	6.38	0.012**

*P = 0.05
**P = <0.05

[a]Non-computable.

the 20-24-year-olds exhibited this behavior. Chi-square value was 0.11 with 1 df. P = 0.737.

2. "Comments on bodily functions." Four of the 12-16-year-olds and 10 of the 20-24-year-olds exhibited this behavior. Chi-square = 2.92. P = 0.087.

3. "Selects name for baby." For this indicator there were 17 of the 12-16-year-olds and 18 of the 20-24-year-olds who had selected a name for their infant. Chi-square = 0.000. P = 1.000.

4. "Associates infant with human characteristics." None of the 12-16-year-olds and two of the 20-24-year-olds exhibited this behavior. Chi-square = 0.53. P = 0.467.

5. "Associates infant with family member characteristics." Thirteen of the 12-16-year-olds and 15 of the 20-24-year-olds exhibited this behavior. Chi-square = 0.16. P = 0.688.

6. "Stimulates infant to open eyes." One of the 12-16-year-olds and two of the 20-24-year-olds exhibited this behavior. Chi-square = 0.000. P = 1.000.

7. "Reaches out to receive infant." Eighteen of the 12-16-year-olds and 18 of the 20-24-year-olds exhibited this behavior.

8. "Enfolds infant in arms and holds against body." Nine of the 12-16-year-olds and 15 of the 20-24-year-olds exhibited this behavior. Chi-square = 3.13. P = 0.077.

9. "Discontinues behaviors which upset infant." Six of the 12-16-year-olds and nine of the 20-24-year-olds exhibited this behavior. Chi-square = 0.46. P = 0.499.

10. "Readily participates in care when asked." All 18 in both age groups exhibited this behavior.

The remaining 25 indicators indicated a significant difference at the .05 level between the two age groups (Table 1). In the behavior group of "identifies infant's physical condition", only one out of the 12-16-year-old group exhibited the behavior of "makes realistic statement about infant's condition", whereas 10 of the 20-24-year-old group exhibited this behavior. For the indicator of "asking questions about infant's condition", one of the 12-16-year-olds and eight of the 20-24-year-olds exhibited this behavior.

For the indicator of "talks to infant", only four of the 12-16-year-old group exhibited this behavior. Thirteen of the 20-24-year-old group exhibited this behavior.

In the behavior group of "changes behaviors in response to infant's", the indicator of "uses soothing

behaviors" was exhibited by five in the 12-16-year-old group. Fifteen of the 20-24-year-old group exhibited this behavior.

For the indicator of "makes eye contact and talks to infant when quiet and alert", five of the 12-16-year-olds and 16 of the 20-24-year-olds exhibited this behavior. The remaining indicator in this group of behaviors was "meets infant's needs prior to own". Eight of the 12-16-year-olds and 18 of the 20-24-year-olds exhibited this behavior.

"Plans for ways to care for infant at home" was noteworthy. For the indicator of "has obtained basic supplies for infant's care", none of the 12-16-year-olds but all 18 of the 20-24-year-olds exhibited this behavior. Only two of the 12-16-year-olds, whereas 16 of the 20-24-year-olds "asked questions about infant's care". For the indicator "plans for well baby care" none of the 12-16-year-olds while all 18 of the 20-24-year-olds exhibited this behavior.

The null hypothesis for this study was: There will be no significant difference in the average maternal attachment score of 12-16-year-old primiparas compared to the average score of 20-24-year-old primiparas as observed at mother-newborn interaction during a scheduled

infant feeding period. To test this hypothesis, the maternal attachment scores for all subjects were computed and the Mann-Whitney U test was applied. The level of significance selected was .05. The Mann-Whitney U statistic was 22.50 and significant at the P = .001 level. The null hypothesis was rejected.

Descriptive statistics for maternal attachment scores in both age groups are indicated in Table 2. The average score for the 12-16-year-old group was 13.33 out of a total of 35 items and 25.17 for the 20-24-year-old group. The median score for the 12-16-year-old group was 12.50, and 26.50 for the 20-24-year-old group. Scores ranged from 5 to 29 for the 12-16-year-old group and 18 to 29 for the 20-24-year-old group. Standard deviation for the 12-16-year-olds was 6.27 and 3.52 for the 20-24-year-olds.

Summary of Findings

For all 35 maternal attachment indicators, the 12-16-year-old group, with the exception of two indicators where the frequencies were the same, exhibited fewer behaviors than the 20-24-year-old group. The average maternal attachment score was lower in the 12-16-year-old group than in the 20-24-year-old group. A significant difference

between the two age groups in the maternal attachement score was found. The null hypothesis for this study was rejected.

Table 2

Descriptive Statistics for Maternal Score in Adolescent and Young Adult Groups (N = 36)

Statistic	12-16 Age Group (N-18)	20-24 Age Group (N=18)
Mean	13.33	25.17
Median	12.50	26.50
Range	5-29	18-29
S.D.	6.27	3.52

CHAPTER 5

SUMMARY OF THE STUDY

The problem of this study was to investigate and determine if there were significant differences in the maternal attachment behaviors exhibited by 12-16-year-old primiparas when compared to the 20-24-year-old primiparas toward the newborn infant. Frequencies of behaviors were observed, recorded, and compared for the two age groups. Mothers in the older group exhibited more attachment behaviors than the younger group. The following hypothesis was stated in the null for this study: There will be no significant difference in the average maternal attachment score of 12-16-year-old primiparas compared to the average score of 20-24-year-old primiparas as observed at mother-newborn interaction during a scheduled infant feeding period. Using statistical analysis, the differences between the average maternal attachment scores for the two groups was found to be significant at the .05 level.

Summary

A descriptive study was conducted to investigate and determine if there were differences in the maternal

attachment behaviors exhibited by 12-16-year-old primiparas and 20-24-year-old primiparas toward their newborn infants. The importance of the mother-infant relationship has been described in the literature. Any factor which inhibits adaptive behavior in the establishment of this relationship is considered detrimental to the quality and quantity of the infant's life. The cognitive, emotional, and social immaturity of the individual is considered to be such a factor, and with the increase in adolescent pregnancies, many consider the immature mother to constitute one of the largest health problems of today (Mercer, 1977).

Most of the studies on maternal-infant attachment have focused on the older mother. In establishing this important relationship, the mother has been observed to respond to her infant in a predictable manner with a predictable pattern of behaviors. A search of the literature regarding the adolescent mother revealed that there was little information concerning the behaviors exhibited by the adolescent during the establishment of the mother-infant relationship. Many of the studies were concerned with the factors which impose hardships on adolescent mothers and the change in relationship with the adolescent's mother.

The proposal for this study was reviewed and approved by Texas Woman's University Human Subjects Review Committee and the participating clinical agencies. Informed consent was obtained from the individuals participating in the study before data collection began.

Individuals participating in the study represented a convenience sampling selected from the clinic population of two large metropolitan hospitals. There were 36 hospitalized primiparous mothers with their newborn infants. Eighteen of the subjects were in the 12-16-year-old group and 18 subjects were in the 20-24-year-old group. All mothers had delivered vaginally and were able to feed and hold their infants. The infants did not exhibit abnormalities or complications. Observations were made of the mother-infant interaction in the hospital rooms on the second postpartum day during a scheduled infant feeding period. Frequencies of maternal attachment behaviors were recorded on a checklist and listed for the two age groups and combined group. Statistical analysis revealed a significant difference between groups on all but 10 out of 35 of the individual behaviors. On each of the 35 individual behaviors, the proportion of the 20-24-year-old mothers exhibiting an individual behavior was greater

than that of the 12-16-year-old group, except for two behaviors where the groups exhibited the same number of behaviors. Thus, there was a trend of the older mother exhibiting more of the attachment behaviors.

The average maternal attachment score was determined for both age groups and combined group. By using statistical analysis, there was found to be a significant difference between the average maternal attachment score for the two age groups.

Discussion of Findings

There is an overall trend for the 20-24-year-old subjects in this study to exhibit more adaptive attachment behaviors than the 12-16-year-old subjects in this study. On all 35 individual behaviors, the 20-24-year-old subjects exhibited the same or more attachement behaviors. On all but 10 of the items, there was a significant difference found between the two groups, according to statistical analysis. Since there were similarities in both age groups (primipara, vaginal delivery, no abnormalities or complications of mother and infant, and ethnic diversity), age was considered to be a relative factor in the establishment of the mother-infant

relationship. Immaturity of the adolescent mother is supported in the literature.

The behaviors for which there were significant differences between the two groups appeared to be related to the adolescent's difficulty in locating, identifying, and claiming the infant and has been described in the literature. The 10 items which did not show a significant difference between the two age groups did not appear to be age related.

The difference in individual attachment behaviors was further supported by the significant difference in the average maternal attachment score found in the two age groups through statistical analysis. The average attachment score for the 20-24-year-old subjects was higher than the average score for the 12-16-year-old subjects.

Conclusions and Implications

The young adolescent mother is more in need of assistance in establishing the mother-infant relationship than is the young adult mother. Systematic assessment of maternal attachment aimed at this younger age group then, should be a primary concern for the health care professional.

Because of the diversity of nursing practice, the implications for nursing involvement in the establishment

of maternal-infant attachment are numerous. Nurses must become more aware of their potential in providing continuous care to families throughout the childbearing cycle. The experience and information obtained from providing this care adds to the development of knowledge and theory related to attachment and the adolescent mother.

Nurses teach antepartum classes, work as maternal health practitioners, provide direct care in the labor room and on the obstetric floor, visit mothers in the postpartum period, and/or provide contraceptive counseling. The opportunity exists for nurses to assess the development of attachment behavior for all age groups throughout the course of pregnancy, during the early postpartum period and beyond, as the child matures.

Nurses also have the potential for assuming a consumer advocacy role. This potential exists not only in intervention directed at assisting the adolescent to receive the immediate care desired, but also on the policy, decision-making, legislative, and government level. For example, there should be support for establishing and maintaining programs aimed at prevention, such as sex education and parent education in the schools and on

television and educational programs for pregnant adolescents and adolescent mothers.

Nurses can participate in educational programs for health care professionals to improve communication skills and service delivery to adolescents. Nurses can also support counseling services for the adolescent mother and her family, infant care programs so that the mother could return to school or work, and programs that encourage the stability of the adolescent parents, both emotionally and financially. Nurses can also support family-centered maternity care and early antepartum care. Nurses can provide understanding and nurturing care for the adolescent mother so that she, in turn, can provide nurturing care for her infant.

During the antepartum period, the nurse can assist the adolescent in accepting the reality of the pregnancy and record the presence or absence of developing maternal attachment behaviors. The nurse can also provide for continuity of care for the adolescent between antepartum clinics, delivery rooms, and postpartum units.

While the adolescent is in labor, the nurse can provide solicitous care and assist the adolescent to maintain control. After birth and during the intrapartum period, the nurse can promote early mother-infant

interaction for the adolescent. The nurse can be alert for signs of maladaptive attachment, such as refusal to touch or hold the infant. Observations can be made and recorded on the same observation guide for maternal behaviors from the antepartum period.

Postpartally, the nurse can facilitate the mother-infant interaction by assisting the adolescent to explore and obtain information about her infant. Role modeling can be employed in addition to allowing the adolescent to share a hospital room with a more experienced mother. Explanation can be made that touch is a necessary sensory modality for the infant's normal growth and development, as is visualization and verbalization.

The adolescent will need assistance in developing new coping behaviors and in assuming maternal responsibility. In assisting the adolescent, the nurse may direct the relationship between the adolescent and her mother towards growth and allowance for independent actions. The adolescent will also need support and encouragement because her feelings of self-esteem and self-confidence may be very fragile during this time. In addition, the adolescent may need assistance as she learns to place the needs of another before her own needs.

Maladaptive patterns of mothering, such as refusal to care for the infant or careless handling of the infant can be reported to the pediatrician or family practitioner, obstetrician, maternal-child health nurse practitioner, and social worker. Care given to the adolescent and her infant can be constantly evaluated. Finally, follow-up service to adolescent families can be provided at 1 week, 1 month, 6 months, and 1 year to assess the mother-infant interaction.

Recommendations for Further Study

The following recommendations are submitted for further research of the adolescent mother-infant interaction based on the investigator's experience with this study.

1. A replication of the present study with a larger sample size and control for sociocultural variables, such as marital status and previous child-care experiences.

2. A descriptive study to determine if differences in attachment behavior occur because of cultural factors, i.e., controlling for ethnicity.

3. A correlational study to determine the relationship between maladaptive maternal attachment of the adolescent and child abuse.

4. A longitudinal study of adolescent mothers at specific intervals to determine maternal attachment behaviors.

5. A correlational study of adolescent mothers and their infants to determine the relationship between self-esteem and maternal attachment.

APPENDIX A

TEXAS WOMAN'S UNIVERSITY

Human Research Committee

Name of Investigator: Patricia Dannel Center: Dallas

Address: 1221 West Washington Date: 12/13/79

Sherman, Texas 75090

Dear Ms. Dannel:

Your study entitled Attachment Behaviors of Adolescent and Young Adult Primiparas has been reviewed by a committee of the Human Research Review Committee and it appears to meet our requirements in regard to protection of the individual's rights.

Please be reminded that both the University and the Department of Health, Education and Welfare regulations require that written consents must be obtained from all human subjects in your studies. These forms must be kept on file by you.

Furthermore, should your project change, another review by the Committee is required, according to DHEW regulations.

Sincerely,

Estelle D. Kurtz

Chairman, Human Research Review Committee

at Dallas.

APPENDIX B

AGENCY PERMISSION FOR CONDUCTING STUDY*

THE Parkland Memorial Hospital of Dallas

GRANTS TO Patricia King Dannel

a student enrolled in a program of nursing leading to a Master's Degree at Texas Woman's University, the privilege of its facilities in order to study the following problem:

To investigate and determine if there are differences in attachment behaviors exhibited by 12-16 year old primiparas when compared to the attachment behaviors exhibited by 20-24 year old primiparas.

The conditions mutually agreed upon are as follows:

1. The agency (may) (~~may not~~) be identified in the final report.

2. The names of consultative or administrative personnel in the agency (may) (~~may not~~) be identified in the final report.

3. The agency (~~wants~~) (does not want) a conference with the student when the report is completed.

4. The agency is (willing) (~~unwilling~~) to allow the completed report to be circulated through interlibrary loan.

5. Other: Would appreciate copy of findings.

Date 1/11/80

Gail Watson
Signature of Faculty Advisor

Patricia King Dannel
Signature of Student

Signature of Agency Personnel 2/1/80

*Fill out and sign three copies to be distributed as follows: Original - Student; first copy - agency; second copy - Texas Woman's University.

AGENCY PERMISSION FOR CONDUCTING STUDY*

THE St. Paul Hospital of Dallas

GRANTS TO Patricia King Dannel

a student enrolled in a program of nursing leading to a Master's Degree at Texas Woman's University, the privilege of its facilities in order to study the following problem:

To investigate and determine if there are differences in attachment behaviors exhibited by 12-16 year old primiparas when compared to the attachment behaviors exhibited by 20-24 year old primiparas.

The conditions mutually agreed upon are as follows:

1. The agency (may) (~~may not~~) be identified in the final report.

2. The names of consultative or administrative personnel in the agency (may) (~~may not~~) be identified in the final report.

3. The agency (~~wants~~) (does not want) a conference with the student when the report is completed.

4. The agency is (willing) (~~unwilling~~) to allow the completed report to be circulated through interlibrary loan.

5. Other: St. Paul reserves the right to approve of any published account of the completed report.

Date 1/11/80

Signature of Faculty Advisor

Patricia King Dannel

Signature of Student

Signature of Agency Personnel

*Fill out and sign three copies to be distributed as follows: Original - Student; first copy - agency; second copy - Texas Woman's University.

St. Paul Hospital

TO: Dr. Stanley Feld, Chairman
St. Paul Medical Staff Research Committee

FROM: Dr. Alvin Brekken
Director of Obstetric-Gynecology Training

DATE: February 6, 1980

RE: Research Protocol submitted by Patricia Dannel, R.N., Graduate Student, T.W.U.

Ms. Dannel spoke to the OB-Gyn section meeting and was given unanimous approval to investigate the following problem at St. Paul Hospital

> To investigate and determine if there any differences in attachment behaviors exhibited by 12-16 year old primiparas when compared to the attachment behaviors exhibited by 20-24 year old primiparas.

Sincerely yours,

Dr. Alvin Brekken

In Southwestern Medical Center

5909 Harry Hines Blvd. · Dallas, Texas 75235 · Phone 214/689-2000

St. Paul Hospital

February 18, 1980

TO: Dr. Stanley Feld

FROM: Betty Grice

RE: Research protocol submitted by Patricia Dannell, R.N., Texas Woman's University graduate student

Mrs. Dannell proposes "to investigate and determine if there are differences in attachment behaviors exhibited by 12-16 year old primiparas when compared to the attachment behaviors exhibited by 20-24 year old primiparas."

The first three papers require your signature. The Human Research Committee approval is ap. ndix A in the back and the form for the subject to sign is appendix C.

Mrs. Dannell appeared before the OB-Gyn section meeting several weeks ago and was granted permission to conduct her research. We are assuming that most of her patients will be Clinic patients so Dr. Brekken agreed to send me a written note confirming the approval. However, he hasn't been here for the past several weeks, and Dr. Reed suggested I inform you that the group did give approval so you could go ahead and sign it.

Thank you so much.

Sincerely,

Betty Grice

Betty Grice, R.N., M.S.
Coordinator, Affiliate Students

BG/gj

In Southwestern Medical Center

5909 Harry Hines Blvd. · Dallas, Texas 75235 · Phone 214/689-2000

APPENDIX C

Consent Form
TEXAS WOMAN'S UNIVERSITY
COLLEGE OF NURSING

(Form A -- Written presentation to subject)

Consent to Act as a Subject for Research and Investigation:

The following information is to be read to or read by the subject. One copy of this form, signed and witnessed, must be given to each subject. A second copy must be retained by the investigator for filing with the Chairman of the Human Subjects Review Committee. A third copy may be made for the investigator's files.

1. I hereby authorize Patricia Dannel
(Name of person(s) who will perform procedure(s) or investigation(s)
to perform the following procedure(s) or investigation(s): (Describe in detail)

Observation of mother and newborn infant for 20 minutes during a scheduled infant feeding period.

2. The procedure or investigation listed in Paragraph 1 has been explained to me by Patricia Dannel
(Name)

3. (a) I understand that the procedures or investigations described in Paragraph 1 involve the following possible risks or discomforts: (Describe in detail)

1) The presence of an observer may cause the feeling of self-consciousness.
2) The information given may be improperly released and could cause public embarrassment.
3) The concern that health care may be altered due to participation or nonparticipation in the study.

(Form A - Continuation)

3. (b) I understand that the procedures and investigations described in Paragraph 1 have the following potential benefits to myself and/or others:

    1) To assist nurses and other medical professionals in improving the care given to mothers and their newborn infants.
    2) To enable the mothers of newborn infants to experience a more positive relationship with their infants.

    (c) I understand that - No medical service or compensation is provided to subjects by the university as a result of injury from participation in research.

4. An offer to answer all of my questions regarding the study has been made. If alternative procedures are more advantageous to me, they have been explained. I understand that I may terminate my participation in the study at any time.

_____ _____
Subject's Signature Date

(If the subject is a minor, or otherwise unable to sign, complete the following:)

Subject is a minor (age____), or is unable to sign because:

Signatures (one required)

_____ _____
Father Date

_____ _____
Mother Date

_____ _____
Guardian Date

_____ _____
Witness (one required) Date

ORAL PRESENTATION

Hello, I am Patricia Dannel, a registered nurse and a graduate nursing student from Texas Woman's University. As part of the requirements to complete my master's degree in maternity nursing, I am conducting a study on mothers and their newborn infants. I would like to have you assist me with this study by allowing me to observe you and your newborn infant for 20 minutes during a scheduled infant feeding period. Your participation would be greatly appreciated.

You may continue as if I were not in the room while I stand (sit) quietly. While I am in the room I will be utilizing a checklist. Names will not be used on the checklist. Information gathered will not be seen by anyone other than myself. Data determined by the study will be reported only on a group basis, thus no individual information will be released. Confidentiality will also be assured by coding the results of the study.

I will not be able to answer questions or offer assistance during the study. Should you become uncomfortable because of my presence, you will be free to discontinue participation and results will be voided. Another minor possible risk to this study, is the improper

release of information which might result in public embarrassment. As previously stated, information will be seen only by the investigator and results will not be released to anyone on an individual basis. Also, you may be assured that the health care that you receive will in no way be affected by your decision to participate or not to participate in this study. You may keep a signed and witnessed copy of the consent form and written explanation. Upon request, you may also have a copy of the summary of the results of the study.

If you are younger than 16 years of age, your parent and/or guardian must also sign the consent form. I will leave this form with you to be signed and will return later to collect the form.

APPENDIX D

CATHERINE CROPLEY'S OBSERVATION GUIDE

FOR MATERNAL BEHAVIORS

Critical Attachment Tasks	Criteria of Attachment Indicators	Observed Behaviors
Observes Infant's Appearance	Spends time looking at baby, other than when providing care.	_____
	Inspects or reviews head, trunk, and extremities.	_____
	Partially unwraps or undresses baby to observe body features.	_____
	Comments on baby's features, e.g., size, sex, hair, etc.	_____
Observes Infant's Behaviors	Talks to baby or smiles in response to infant's movements.	_____
	Comments on baby's behavior, e.g., opening eyes, grasping with hand.	_____
	Comments on infant's bodily functions, e.g., wetting, sucking, burping, etc.	_____
Identifies Infant's Physical Condition	Makes realistic statements about condition. "Her eyes are not so puffy today." Or, "He looks so pale."	_____
	Asks questions about condition, e.g., "What is the mark on her head?" Or, "Is he getting better?"	_____

OBSERVATION GUIDE (continued)

Critical Attachment Tasks	Criteria of Attachment Indicators	Observed Behaviors
Sees Infant as Another Human Being	Has selected a name for the baby.	_____
	Uses given or affectionate name when talking to or about baby.	_____
	Associates infant's characteristics, e.g., "He looks like a football player." Or, "She looks like a real baby now."	_____
Includes Infant in the Family	Attempts to associate infant's characteristics with those of other family members, e.g., "She has her daddy's eyes." Or, "He doesn't look like anyone else in the family."	_____
Talks to Infant	Talks or sings to infant.	_____
Establishes Eye Contact	Uses en face position.	_____
	Changes own position or that of infant to establish eye contact.	_____
	Stimulates infant to open eyes by shielding them from the light or by using other maneuvers.	_____

OBSERVATION GUIDE (continued)

Critical Attachment Tasks	Criteria of Attachment Indicators	Observed Behaviors
Demonstrates Physical Closeness	When handed infant, reaches out to receive baby.	_____
	Uses fingertips on head and extremities.	_____
	Uses palms on infant's trunk.	_____
	Enfolds infant in arms and holds against her body.	_____
	If infant hospitalized after mother discharged, visits a minimum of twice a week, for not less than thirty minutes per visit.	_____
Changes Behaviors in Response to Infant's Behavior	When infant is fussy, attempts to soothe by patting, cuddling, rocking or talking to baby.	_____
	Does not continue behaviors which upset infant, or behaviors to which infant does not respond.	_____
	When infant is quiet and alert, makes eye contact and talks to baby.	_____
	Meets infant's needs prior to her own, e.g., "I'll feed him now and have breakfast later."	_____

OBSERVATION GUIDE (continued)

Critical Attachment Tasks	Criteria of Attachment Indicators	Observed Behaviors
Recognizes Infant's Needs and Provides Appropriate Care	Readily participates in care when asked.	_____
	Recognizes baby's needs and attempts to meet them or communicate them to someone who can, e.g., changes shirt after baby spits up, or changes wet diaper.	_____
	Handles baby in a manner which is comfortable for infant, e.g., infant's head and body are well supported and infant is handled gently with smooth rather than jerky movements.	_____
Plans for Ways to Care for Infant at Home	Has obtained basic supplies for infant's care, prior to infant's discharge.	
	Asks questions about care, e.g., feeding schedule, formula preparation, cord care, etc.	_____
	Has made plans for or asks assistance with plans for well baby care.	_____
Perception of Infant	Comments about baby are predominantly positive.	_____
	Smiles frequently when looking at infant or when talking to or about baby.	_____

OBSERVATION GUIDE (continued)

Critical Attachment Tasks	Criteria of Attachment Indicators	Observed Behaviors
Perception of Self	Comments about self are predominantly positive.	_____
	Expresses satisfaction with mothering role.	_____

Total Number of Behaviors Observed _____

Date_____ Time_____

Situation_____

Code #_____

Date of delivery_____

APPENDIX E

CHARLES R. DREW
POSTGRADUATE MEDICAL SCHOOL

Department of Obstetrics and Gynecology

1621 East 120th Street
Los Angeles, California 90059
Telephone: (213) 603-3141

Please reply to
Martin Luther King, Jr. General Hospital
12021 Wilmington Avenue
Los Angeles, California 90059

July 26, 1979

Ms. Pat Dannel
1221 W. Washington
Sherman, Texas 75090

Dear Ms. Dannel,

I am happy to grant my permission as well as that of Sharon Pennington for you to use the "Maternal Attachment Tool" published in the Current Practice in Obstetric and Gynecologic Nursing, 1976, in your graduate research project.

As Mrs. Pennington cannot be located, the C.V. Mosby Company has given me the responsibility of granting permission for her.

I would be very interested in a summary of your research results. You can communicate with me through my home or work address.

Sincerely,

Cathy Cropley

Catherine Cropley
Neonatal Nurse Educator

Home Address: 4129-Jasmine Avenue
Culver City, CA 90230

CC/bjc

October 15, 1979

Ms. Pat Dannel
1221 West Washington
Sherman, Texas 75090

Dear Pat,

You have both my permission and that of Sharon Pennington to use the Maternal Attachment Tool found in Current Practice in Obstetric and Gynecologic Nursing, 1976 in your Master's thesis. In addition I also grant permission for you to use the "Observation Guide for Maternal Behaviors" found in Suzanne Hall Johnson's High Risk Parenting, 1979.

I am sending under separate cover a xeroxed copy of the original study, hoping that it may assist you with some of the questions we discussed. I note that we did indeed give points to the additional behaviors we recommended. I am sorry I was not able to mail it until today, but it has been sent First Class, so hopefully you will have it before long. Do let me know if I can be of any further assistance. I do enjoy talking with someone who shares a common interest.

I know what an enormous task it is to complete a thesis and I'm sure it has been made even more difficult because of the personal matters that have taken your time and energy. Once completed, I'm sure you will feel good about the study and hopefully be able to use the findings in many ways. Let me know how you are coming and good luck!

Sincerely,

Cathy

Catherine Cropley

APPENDIX F

1221 West Washington
Sherman, Texas 75090
October 20, 1979

Mr. David T. Miller
J. B. Lippincott Company
Philadelphia, Pennsylvania 19105

Dear Mr. Miller,

To complete my Master's Thesis in nursing at Texas Woman's University, I am conducting a study on maternal attachment behaviors of the adolescent primipara as compared to her older counterpart. My study will involve thirty subjects. With your permission, I would like to utilize the "Observation Guide for Maternal Behaviors" found in High Risk Parenting, 1979 on pages 30-31.

At present, I am writing the author for written permission to use the aforementioned instrument.

Thank you very much for your assistance.

Sincerely yours,

Pat Dannel

Pat Dannel

PERMISSION GRANTED

E. Jean Hughes 10/28/79

E. J. LIPPINCOTT

Permissions Editor

Medical Books

Date

J. B. LIPPINCOTT COMPANY

APPENDIX G

DEMOGRAPHIC DATA

Code #_____

Age_____

Number of Pregnancy_____

Ethnic Group_____

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