

5-1-1989

Maternal Role Perception In Mothers With 4-Month-Old And 8-Month-Old Infants

Teresa B. Crockett
Mississippi University for Women

Follow this and additional works at: <https://athenacommons.muw.edu/msn-projects>



Part of the [Nursing Commons](#)

Recommended Citation

Crockett, Teresa B., "Maternal Role Perception In Mothers With 4-Month-Old And 8-Month-Old Infants" (1989). *MSN Research Projects*. 68.

<https://athenacommons.muw.edu/msn-projects/68>

This Thesis is brought to you for free and open access by the MSN Research at ATHENA COMMONS. It has been accepted for inclusion in MSN Research Projects by an authorized administrator of ATHENA COMMONS. For more information, please contact acpowers@muw.edu.

Maternal Role Perception in Mothers with
4-Month-Old and 8-Month-Old Infants

by

Teresa B. Crockett

A Thesis
Submitted to the Faculty of
Mississippi University for Women
in Partial Fulfillment of the Requirements
for the Degree of Master of Science in Nursing
in the Division of Nursing
Mississippi University for Women

May, 1989

ProQuest Number: 27919808

All rights reserved

INFORMATION TO ALL USERS

The quality of this reproduction is dependent on the quality of the copy submitted.

In the unlikely event that the author did not send a complete manuscript and there are missing pages, these will be noted. Also, if material had to be removed, a note will indicate the deletion.



ProQuest 27919808

Published by ProQuest LLC (2020). Copyright of the Dissertation is held by the Author.

All Rights Reserved.

This work is protected against unauthorized copying under Title 17, United States Code
Microform Edition © ProQuest LLC.

ProQuest LLC
789 East Eisenhower Parkway
P.O. Box 1346
Ann Arbor, MI 48106 - 1346

Maternal Role Perception in Mothers with
4-Month-Old and 8-Month-Old Infants

by

Teresa B. Crockett

Mary Patricia Gurtis

Associate Professor of Nursing
Director of Thesis

Virginia Lee Cox

Associate Professor of Nursing
Member of Committee

Rayna Skinner

Professor of Nursing
Member of Committee

Joyce Hunt

Director of the Graduate School

Acknowledgements

I would like to take this opportunity to thank the graduate nursing faculty and my fellow students for their support and encouragement in completion of my goal. Special thanks to Mary Pat Curtis, my advisor, for her guidance, understanding, and patience. My sincere appreciation to my committee members, Dr. Rayma Skinner and Dr. Virginia Cora, for their time and help throughout the completion of this thesis.

I am grateful to my family for their love and support in completion of this graduate study: my husband, Gary, and sons, Justin and Bruce. My family sacrificed time and attention for me to complete this program. I would like to extend special thanks to my parents, Geneva and Jack Blanton, and Marie and Merton Crockett for their assistance and support in pursuing this graduate study.

Abstract

The purpose of this descriptive study was to assess maternal role perceptions and to determine if infant developmental tasks impact upon maternal perception. The researcher asked the following questions: Is maternal role perception more positive when the infant is 4 months of age than when the infant is 8 months of age? How does the infant's developmental task of the "social smile" at 4 months affect maternal role perception? How does the infant's developmental tasks of "stranger reaction" and "separation anxiety" at 8 months affect maternal role perception? Barnard's Parent-Child Interaction Model (1979) and Mercer's (1985) evaluation of the process of maternal role attainment during the first year of motherhood provided the conceptual framework for this study.

Maternal role perceptions were measured using two instruments, Gratification in the Maternal Role and Feelings About the Baby (Mercer, 1985) and awareness of developmental task was achieved through maternal report. The sample consisted of 27 mothers who lived in rural Mississippi with infants who were either 4 or 8 months of age. Group 1, the longitudinal sample, consisted of mothers who completed the instruments when their infants were 4 and 8 months of age.

Both Groups 2 and 3 were cross-sectional samples consisting of mothers who completed the instruments when their infants were either 4 or 8 months of age.

The dependent t, student's t, and chi-square statistics were used to analyze data. No values were found to be significant at the .05 level. The results of this study indicated that maternal role perceptions about self and infant for both the longitudinal and cross-sectional samples remained constant at 4 and 8 months postpartum. Furthermore, developmental tasks were not found to impact maternal role perceptions. Further research about maternal role perceptions was recommended.

Table of Contents

| | Page |
|--|------|
| Acknowledgements..... | iii |
| Abstract..... | iv |
| List of Tables..... | viii |
| Chapter | |
| I. The Research Problem..... | 1 |
| Introduction to the Problem..... | 1 |
| Maternal Self-Concept..... | 3 |
| Infant Development..... | 5 |
| Maternal-Infant Relationship..... | 7 |
| Significance to Nursing..... | 10 |
| Statement of the Problem..... | 11 |
| Study Questions..... | 11 |
| Definition of Terms..... | 11 |
| Assumptions..... | 12 |
| II. Conceptual Framework..... | 13 |
| III. Review of the Literature..... | 17 |
| IV. Research Design and Methodology..... | 28 |
| Variables..... | 28 |
| Setting, Population, and Sample..... | 29 |
| Data-Gathering Process..... | 30 |
| Instrumentation..... | 31 |

| | |
|---|----|
| Statistical Analysis..... | 32 |
| Limitations..... | 33 |
| V. Findings and Analysis of Data..... | 34 |
| VI. Outcomes of the Study..... | 47 |
| Summary..... | 47 |
| Discussion..... | 48 |
| Recommendations..... | 52 |
| REFERENCES..... | 53 |
| APPENDICES | |
| A. Letter of Information and Consent..... | 59 |
| B. Parenting Checklist..... | 60 |
| C. Feelings About My Baby..... | 61 |
| D. General Information..... | 62 |

List of Tables

| Table | Page |
|---|------|
| 1. Raw Data: Race, Infant's Birth Order, Maternal Age, Method of Delivery, Awareness of Developmental Task and FAB and GRAT Scores..... | 37 |
| 2. Comparison of GRAT and FAB Scores, Longitudinal Sample..... | 40 |
| 3. Comparison of GRAT and FAB Scores, Cross-Sectional and Longitudinal Samples..... | 41 |
| 4. FAB Scores Correlated to Cognition of Developmental Task--Separation Anxiety..... | 43 |
| 5. FAB Scores Correlated to Cognition of Developmental Task--Stranger Reaction..... | 44 |
| 6. GRAT Scores Correlated to Cognition of Developmental Task--Separation Anxiety..... | 45 |
| 7. GRAT Scores Correlated to Cognition of Developmental Task--Stranger Reaction..... | 46 |

Chapter I

The Research Problem

Motherhood is not an instinctive or intuitive response that all females possess, but a complicated integration of learned behavior within a given social system. Several researchers have described the maternal role as a complex social and cognitive process which is learned over time (Mercer, 1985; Rubin, 1967a; Walker, Crain, & Thompson, 1986a; Walker, Crain, & Thompson, 1986b). All expected behaviors or roles are based upon a person's position in society and relationships with others. The same is true of the maternal role. Maternal-infant interaction is a two-way process with both mothers and their infants contributing to the success or difficulty of the relationship. Therefore, the maternal role requires reorganization within a previously established role set at a particular stage in a woman's life. Maternal role perceptions of the dynamic maternal-infant relationship at various infant developmental stages are the focus of this research.

Introduction to the Problem

In 1985, Mercer evaluated the process of maternal role attainment during the first year of motherhood. The purpose

of Mercer's (1985) study was to assess the pattern of maternal role attainment behaviors over a one year period. Maternal age, the challenges or demands in the role, and role strain also were examined. Role theory with an interactionist approach provided the framework for this research. The sample included 242 women who delivered their first normal live-born infant at greater than 37 weeks. The group was divided into three age groups: 15-19, 20-29, and 30-42 years. Four instruments were used to measure maternal role attainment: Feelings About the Baby (FAB), Gratification in the Mothering Role (GRAT), Interviewer-Rated Maternal Behaviors (MABE), and self-reported Ways of Handling Irritating Child Behaviors (WHIB).

Mercer (1985) found that the maternal behaviors did not increase positively linearly over the first year of motherhood. FAB scores peaked when the infant was 4 months old and declined when the infant was 8 months old, remaining stable at 12 months for all age groups. MABE scores increased during the first 4 months, then decreased over the next 8 months for all age groups. There was no significant difference according to maternal age except in gratification of the role: Teenagers peaked at 4 months, then dropped over the next 8 months, while the remaining two age groups increased slightly or remained constant throughout the year. WHIB behaviors improved over the first 8 months for all age groups. Between 8 and 12 months the teenage group had a

slight decrease while the 30- to 42-year-olds continued to improve and the 20- to 29-year-olds remained constant.

Mercer (1985) concluded that maternal attainment behaviors did not positively increase linearly during the first year of motherhood as anticipated. Instead, these behaviors peaked at 4 months and declined at 8 months. "The departure from a positive linear increase in maternal role attainment behaviors was a discontinuity for which the women appeared unprepared" (p. 203). This departure from the expected course was attributed to infant developmental tasks of social smile at 4 months which was a positive influence upon maternal role perception and "stranger reaction and separation anxiety" at 8 months of age which negatively influenced maternal role perception (Mercer, 1985).

Maternal Self-Concept

According to Rubin (1967b), the mother's self-concept helps or hinders her maternal ability. Rubin believed that the female self-system had three components: the ideal image, the body image, and the self image. The ideal image referred to the traits, attitudes, and abilities that are desirable for all mothers within a culture. A few years ago, the prevailing belief in America was that "good mothers" stayed home with their children and did not work outside of the home. Today, many people believe that mothers can be good mothers while continuing to work outside the home.

Body image refers to the personal capabilities and abilities of the mother to control bodily functions. Numerous physical changes occur during a pregnancy. If the female views these changes as positive, then self-esteem will be increased. However, if the female views these changes as negative, then self-esteem will be lowered. Self-image is concerned with the real and consistent self in the here and now. This image is influenced by the mother's perception of how others view her and her performance (Rubin, 1967b).

A female's self-concept influences maternal role attainment. Mercer (1985) portrayed maternal role attainment as a process with four steps: (a) anticipatory--during pregnancy, (b) formal--expectations of others after birth, (c) informal--development of a maternal self style, and (d) personal--congruence of maternal self style and maternal identity with the expectations of others. During the anticipatory phase the female seeks maternal role models. This phase occurs indirectly throughout childhood and early adulthood and directly during the actual pregnancy. The type of mothering a female receives will influence this phase. During pregnancy, a female will evaluate the mothering styles of family and friends.

The formal phase of maternal role attainment begins at the birth of infant. Behaviors at this point are largely influenced by the consensual expectations of others.

Expectations of family and friends are portrayed by the new mother (Mercer, 1985). During the postpartum period, the mother experiences both physiological and psychosocial changes and must respond to these changes. According to Walker et al. (1986a), the following maternal tasks need to be accomplished during this time period: physical recovery, mastery of new role behavior, development of a sensitive awareness of the infant's needs, identifying how the infant expresses those needs, and the establishment of an emotional linkage with the infant.

During the informal phase, the mother develops a unique self style of parenting. In the final phase, personal congruence develops between the formal and informal steps. By combining past experience, views of others, and self beliefs, the female is able to achieve a maternal identity which meets the needs of all participants. It must be noted that these steps are integrated within an established role set and that this process is influenced by the female's social support systems, role partner (infant), female's self-concept, and numerous other factors (Mercer, 1985).

Infant Development

According to Clark and Affonso (1976), everything about the newborn, such as the sex, size, activity level, and physical characteristics, play a part in the development of the maternal-infant relationship. The infant's appearance, uniqueness, and level of interaction influence the amount

and type of mothering that the infant will receive (Anderson, 1981; Brazelton, 1963; Clark & Affonso, 1976; Mercer, 1977; Taylor, 1981). Blair and Salerno (1976) believed that when the infant positively responds to the mother, the tasks of mothering become a priority. The more positive the response to a stimulus by the infant, the more likely the mother is to repeat that stimulus. "Thus, the infant's contentment or irritability, his ability to be consoled, his cooperation or lack of it, indeed all of his behaviors and responses signal the mother to increase or decrease the stimulation" (Clark & Affonso, 1976, p. 97).

Whitehouse (1987) described a process in which infants go through three critical points of reorganization. The first point occurs between 2 and 3 months of age, the second between 7 and 9 months, and the third between 15 and 18 months. Following each of these points, the infant views "self" and "other" from a broader perspective and is capable of more complex behavior. The following are examples of statements made by parents whose infants had passed each of these critical points.

For the first 2 months, Brian was either sleeping, eating, or crying. Now, he smiles and coos and I can play with him! . . . As soon as Lisa could crawl, she began to be fearful. She won't even go to her grandparents. My mother tells me I've spoiled her. . . . I was eager for Michael to talk. That was before I realized his favorite word would be NO! (p. 18)

These critical points of reorganization have been supported by physical evidence. Emde, Gaensbauer, and Harmon (1976) documented a clustering of changes on electroencephalograph and altered sleep-state physiology in infants around 2 months and 9 months of age. These developmental changes alter the maternal-infant relationship, and sometimes these changes can lead to problematic behaviors which may lead to a decrease in maternal role competence (Sanders, 1962).

Maternal-Infant Relationship

According to Newcomb (1961), there are three steps in the formation of a relationship. These steps include (a) obtaining information about one another, (b) assessing the other participant's attitude, and (c) continuing to collect data which will either validate or negate the original opinion. When applying these steps to the maternal-infant relationship, the starting point of this relationship differs. Blair and Salerno (1976), Carter-Jessup (1981), Cranley (1981), Kennell and Klaus (1982), Mercer (1985), and Rubin (1967a) believed that some type of "bonding" relationship begins between the mother and infant during pregnancy. Clark and Affonso (1976) and Gay (1981) believed that the process cannot begin until after the birth of the infant, since the participants must meet face-to-face in order to form a relationship. Maternal-infant interaction

is viewed as a working, ongoing process with both parties contributing daily to the continuation of the relationship.

Regardless of when the process begins for the mother and infant, the findings of many researchers agreed that this first relationship forms the foundation for all future relationships (Clark & Affonso, 1976; Curran, 1983; Frailberg, 1971; Kennell & Klaus, 1982). Erikson (1963) and Cline (1979) believed that the formation of a bonding relationship between the mother and infant is necessary for the development of trust. Kennell and Klaus (1982) stated that bonding is essential for the survival and the development of the infant. Maternal behaviors which are sensitive and responsive to the infant's needs are especially important for healthy emotional development of the infant (Ainsworth, Belhar, Waters, & Wall, 1978). The developmental milestones of the social smile, stranger reaction, and separation anxiety are signs that the infant has internalized the mother (Cline, 1979).

Physical and emotional growth and development contribute to the infant's developing a sense of self. Whitehouse (1987) suggested that the infant has a view of a subjective self at birth and develops an objective self around the age of 2 years when the toddler is capable of using abstract symbols and language. The infant's developing sense of self has two major components, self-organization and self-confidence. The infant develops

"self-organization by recognizing that some sensory experiences are associated and predictable" and "self-confidence through awareness of personal competence, when he or she initiates actions that effectively produce the responses the infant intends" (Whitehouse, 1987, p. 17).

Negative communication patterns between the mother and infant can lead to both physical and emotional problems for the infant and stress for the mother. Maternal deprivation or child neglect and child abuse are two complications which may be seen when there is a negative maternal-infant relationship. If these conditions are not detected and treated, the child is at risk for future problems. Children who are deprived or abused can develop personality problems and mental illness. These conditions impact the entire lifespan and alter the lifestyle of the individual (Ubell, 1988).

Since the maternal-infant relationship lays the foundation for all future relationships, all members of the health care team need to be conscious of the interaction and relationship between mothers and their newborns (Curran, 1983; Frailberg, 1971). By noting any problems or difficulties within this relationship, members of the health care team provide early diagnosis and treatment which may prevent problems. Nurses and other health care providers must use their assessment skills to evaluate the family as a unit and each member as an individual, at any time, any place, and in

any situation. This observation begins in family planning clinics, prenatal clinics, labor and delivery units, and postpartum areas, and continues during well-baby checkups, postpartum follow-up, day-care and school settings, and any place where parents and children interact.

Significance to Nursing

Primary roles of the Family Nurse Clinician (FNC) include that of assessor, teacher, counselor, and advocate. By using individual and family assessment skills, the FNC can identify concerns or problems for individuals and families and develop a plan of care which will meet those needs. In the educational role, the FNC teaches parents about prenatal care, labor and delivery, postnatal period, and normal newborn care. Parents need to know what to expect from infants physically, emotionally, and socially. The FNC also provides family planning education for future parents.

Other roles of the FNC are counselor and advocate. In the role of counselor, the FNC is in constant contact with individuals and families. This contact provides an excellent opportunity to note any problems in interpersonal skills and to provide counseling. The third role of the FNC is advocate. The FNC working with the existing health care system and the family is in a position to promote changes within the health care system which could benefit the consumer. The FNC also is responsible for ensuring that the

patients and family members are aware of their rights and options regarding health care.

Statement of the Problem

This study addressed the question: What is the impact of infant developmental tasks upon maternal role perceptions when the infant is 4 and 8 months of age? These perceptions were defined as the mother's subjective view of self and infant. Infant development was confirmed by utilizing a portion of the Denver Developmental Screening Test.

Study Questions

The following research questions guided this study:

1. Is maternal role perception more positive when the infant is 4 months of age than when the infant is 8 months of age?
2. How does the infant's developmental task of the social smile at 4 months affect maternal role perception?
3. How do the infant's developmental tasks of stranger reaction and separation anxiety at 8 months affect maternal role perception?

Definition of Terms

For the purpose of this study, the following terms were defined:

Infant--a healthy term baby with no known physical or developmental problems and 4 or 8 months old (plus or minus 2 weeks).

Maternal role perception--maternal thoughts and feelings about her infant and her role as mother as measured by the Gratification in the Mothering Role and Feelings About the Baby.

Infant's developmental tasks--achievement of skills appropriate to chronological age as measured by the Denver Development Screening Test.

Assumptions

This study was based on the following assumptions:

1. Maternal perception exists as a dynamic process which changes over time and which is measurable.
2. Mothers are willing and able to share their honest perceptions of how they think and feel about themselves and their infants.

Chapter II

Conceptual Framework

The conceptual framework for this study was Barnard's Parent-Child Interaction Model (1979). This conceptualization of interpersonal relationships was concerned with the interaction between parents and children. Since the major focus of this research was concerned with maternal-infant relationships during the first year, the use of this model as a conceptual framework was appropriate.

Barnard's (1979) model consisted of three major concepts. These concepts were the child, the parent, and the environment. The child was described by using newborn behavioral characteristics, such as physical appearance, temperament, ability to adapt to the caregiver and environment, and feeding and sleeping behaviors. In this study, the child was a healthy infant with no physical or developmental problems at 4 or 8 months of age. The concept of parent referred to the primary caregiver. Important characteristics of the mother included psychosocial assets, concerns about the child, her own health, amount of life change experienced with childbirth, expectations for the child, parenting style, and adaptation skills. In this

study, the parent was defined as a mother between 17 and 35 years of age, who experienced a normal labor and delivery.

The concept of environment included both the child and the mother. The characteristics for the environment were the physical surroundings of the family, the father's involvement, and the degree of mutual parenting in regard to childrearing (Barnard & Eyres, 1979). The environment included two components, the animate and the inanimate. The inanimate environment included objects which can be explored and manipulated, while the animate environment included objects used by the caregiver to arouse and direct the child to the external world (Barnard & Eyres, 1979). In this study, the environment was not a concept which is measured.

Using the concepts of child, parent, and environment, Barnard (1979) focused her model on intrapersonal relationships. Relationships were viewed as an interactive system, which was influenced by characteristics of the participants. In order to be in an interactive system, the infant must send clues to his/her caregiver, such as hunger and sleepiness. The clarity of these clues either will make it easy or difficult for the caregiver to interrupt and respond appropriately. Ambiguous or confusing clues can interfere with the parent's adaptive response. Also important is the way the infant responds to the caregivers.

Parents, like infants, must be able to interpret and respond appropriately to the clues their infants send. A

sensitivity or awareness to the child's cues is an important component which allows appropriate response by the parent. External stressors, financial or occupational concerns, can reduce the parent's sensitivity. The parent's ability to alleviate the infant's distress promotes the development of trust. In an interactive system the participants constantly alter their behavior to meet the needs of the relationship (Baker et al., 1986). This study evaluated the impact of the infant's development tasks of social smile, stranger reaction, and separation anxiety upon maternal perceptions.

Barnard viewed nursing as a process which assists the client to maintain and promote independence. This role included client education and therapeutic and restorative measures and involved facilitation of change, including, but not limited to, a change in the environment (Barnard, 1966). In 1981, at a keynote address to the International Nursing Research Conference, Barnard echoed the American Nurses' Association's definition of nursing as "the diagnosis and treatment of human responses to actual or potential health problems" (American Nurses' Association, 1980). Man was defined as someone with the ability to receive and process visual, auditory and tactile stimuli (Barnard & Powell, 1972). Health is viewed as reaching one maximum potential (Baker et al., 1986).

In this study, nursing was viewed from the perspective of the Family Nurse Clinician (FNC). Since Barnard believed

that the infant's behavioral characteristics influence the maternal-infant relationship, evaluations of the impact of developmental tasks upon this relationship provide the FNC with information which can assist in promoting positive maternal-infant relationships. The FNC is concerned with the promotion of positive maternal-infant relationship, through which maternal and infant physical and emotional well-being can be promoted.

In summary, this research tested Barnard's parent-child interaction model by examining maternal role perceptions of their role at 4 and 8 months of motherhood and evaluated the impact of the infant's behavior upon the relationship. The developmental tasks of social smile between 2 and 4 months and stranger reaction and separation anxiety between 6 and 8 months indicate the development of a relationship by the infant with a caregiver but may be viewed negatively by the caregiver. By evaluating the impact of developmental stages upon the maternal-infant relationship, the FNC then can assess ways to prepare mothers for infant developmental stages.

Chapter III

Review of the Literature

A positive maternal self-concept is important to the development and maintenance of a positive maternal-infant relationship (Brouse, 1988; Mercer, 1985; Pridham & Chang, 1985; Walker et al., 1986a; Walker et al., 1986b). However, few research studies have addressed this issue. The following selected review of literature is focused on the development of a maternal role in primipara and multipara females during the first year of motherhood. Research relevant to maternal self-concept, self-evaluation, and perceptions of self in the maternal role are presented. Lastly, this review includes a study which examines the promotion through education about infant abilities of a more positive self-image and more positive maternal-infant interaction.

In 1967, Rubin conducted a double-blind study to determine the processes involved in the acquisition of the maternal role. The theoretical framework utilized for this research was role theory. The subjects were primiparas and multiparas from two university hospitals, one in Chicago and one in Pittsburgh. Both longitudinal and cross-sectional samples were included. The longitudinal sample consisted of

5 primiparas and 4 multiparas who were followed through pregnancy and one month after delivery with an average of 25 interviews per participant. There were 77 cross-sectional interviews with primiparas and 74 cross-sectional interviews with multiparas.

The interviews were conducted by graduate nurses who were enrolled in an academic graduate program. These nurses received training in interviewing and observation skills. The subjects were "observed for behavior, verbal and nonverbal, in action and interaction, in settings culturally and subjectively appropriate for a woman becoming a mother" (Rubin, 1967a, p. 238). Data were recorded following each interview using a previously developed classification system for coding behaviors. The antepartal interviews were between 1 and 2 hours in length while the postpartal interviews were 3 to 4 hours.

A high incidence of taking-in behavior in the maternal role for both groups was found. Taking-in behavior is used to describe the earnestness and intensity with which a woman takes on the task of becoming a mother. Forty primiparas produced 4,799 relevant items in 196 interviews, while multiparas produced 4,145 items in 115 interviews. Rubin's (1967b) research identified five different operations related to role-taking and acquisition of the maternal role: (a) mimicry, (b) role play, (c) fantasy, (d) introjection-projection-rejection, and (e) grief work. Recommendations

for future research were not specifically stated but may include continuing behavioral and psychological assessment of the maternal role.

Psychological changes associated with the first pregnancy and early postpartum were investigated by Leifer (1977). The first goal of this study was to determine the emotional changes which occur during a woman's first pregnancy and to evaluate if pregnancy and motherhood were viewed as a period of psychological crisis. A second goal was to trace the development of maternal feeling. The final goal of this research was to determine if characteristics measured early in pregnancy can predict attitudes and adjustment to later stages of pregnancy and adaptation to parenthood.

The sample consisted of 19 white, middle class, married primigravidas between 22 and 33 years of age, with no history of gynecological or psychiatric problems. Each woman was interviewed during each trimester of pregnancy, on the third postpartum day, and at 2 months postpartum. A follow-up questionnaire was mailed at 7 months postpartum.

Findings indicated that although "emotional upheaval and rapid change were characteristic of pregnancy, for some women a growing sense of adulthood, fulfillment, and integration of a new maturational stage clearly coexisted with the emotional disequilibrium" (Leifer, 1977, p. 57). Leifer concluded that reactions which occur during pregnancy

usually are indicative of future mothering behavior and may be important diagnostic aids to assist in identifying problems with mother-child interaction. Recommendations for future research were not stated specifically, but the need for research which focuses on the emotional changes associated with becoming a parent and maternal-child interaction was suggested.

Gruis (1977) tried to identify the concerns that women have during the postpartum period. The questions guiding this study were "Are there differences between the concerns of primiparas and multiparas? To which of the tasks of the puerperium do the majority of concerns relate? What resources do mothers use when concerns arise? In what areas are resources lacking?" (Gruis, 1977, p. 184). The sample included 40 mothers, 17 primiparas and 23 multiparas, between 18 and 36 years of age. All mothers delivered in private hospitals, had no medical complications, and lived with the father of the baby. A questionnaire was developed which listed potential areas of concern. Participants also were asked to include any questions or concerns they had which were not listed.

A major area of concern identified by the mothers was the return of their figures to a prepregnant state which they associated with diet and exercise. Other areas of concern identified by mothers included regulating the demands of home, infant, and baby; and the changing

relationships with spouse, including sexual relationships. The majority of respondents reported some concern about "fatigue, emotional tension, feelings of isolation and being tied down, and finding time for personal needs and interests" (Gruis, 1977, p. 185). Conclusions of the study indicated that most women find support from their spouses during periods of concern and do not seek input from nurses or other health care providers. Recommendations included research which focuses on the feeling of isolation and being tied down and the assessment of support systems.

Maternal identity and maternal role attainment for primiparas and multiparas were further studied by Walker et al. (1986a). The purpose of this study was twofold: (a) identify changes and the stability of changes in maternal identity and maternal role attainment and (b) determine the relationship among infant sex, maternal age, education, socioeconomic status, maternal identity, and maternal role attainment. Subjects included 64 married primiparas and 58 multiparas with medically uneventful pregnancies and no major labor or postpartal complications. All infants were full-term singletons with no major congenital anomalies or perinatal illness.

The Pharis Self Confidence Scale (Pharis, 1978) and two semantic differential scales, Myself as a Mother and My Baby (Osgood, Suci, & Tannenbaum, 1957), were used to collect data. The attitude tests were administered in the hospital

between 1 and 3 days postdelivery and again during a home visit between 4 and 6 weeks postpartum.

Findings indicated that multiparas had more positive attitudes toward themselves than primiparas had. Both multiparas' and primiparas' attitudes toward themselves became more positive on the second home testing. Multiparas conveyed a more positive attitude toward their infants at the first hospital testing, but both groups were less positive toward their infants at the second testing. Recommendations for future research included evaluation of maternal identity and maternal role attainment as related to patterns of interaction between mothers and infants.

In a follow-up study, Walker et al. (1986b) examined the dynamics of maternal role attainment. The second sample included 64 primiparas and 60 multiparas who were medically low-risk mothers with healthy full-term infants. The sample consisted of white, middle-class women who were breastfeeding their infants. Four instruments were used to collect data: the Pharis Self Confidence Scale (Pharis, 1978); two semantic differential scales, Myself as a Mother and My Baby (Osgood et al., 1957); and finally the Maternal-Infant Adaptation Scale (Price, 1977).

Findings of this study indicated that most correlations between the subjective and objective components of role attainment were not significant. As a result, Walker et al. (1986b) concluded that subjective components are not

extensively interwoven with behavioral components. Therefore, evaluation of the subjective component is essential to evaluation of the maternal-infant relationship. Recommendations included continuing to assess the components of role attainment and exogenous factors which can influence that process.

Parental experiences and self-images which could influence the parent-infants were assessed by Pridham and Chang (1985). The sample included 49 mothers who were age 17 years or older, married or in a stable relationship with a partner and lived within a 30-mile radius of a midwestern university and their healthy newborns. Four instruments were used to collect data. The first instrument, What Being the Parent of a New Baby is Like was developed for this study to measure four aspects of parental beliefs. These aspects were (a) centrality of the infant in the parent's life, (b) change experienced by the parent, (c) satisfaction in being a parent, and (d) evaluation of performance as a parent (Pridham & Chang, 1985). The second instrument, How Parents Problem-Solve Regarding Infants (Pridham & Hansen, 1980), was used to establish the concurrent validity of the What Being the Parent of a New Baby is Like. The Neonatal Perception Inventories (Broussard, 1979), the third instrument, assessed the amount of difficulty an average mother would have with crying, feeding, spitting up, sleeping, bowel movements, and establishing a pattern. The fourth

instrument, the Degree of Bother Inventory (Broussard & Hartner, 1971) measured how bothered mothers were about the above listed behaviors.

The instruments were administered on three different occasions. The What Being the Parent of a New Baby is Like was given three times, between 5 and 7 days, 29 and 42 days, and 85 and 98 days after the birth of the infant. How Parents Problem-Solve was completed on the second and third visits with the parents. The Neonatal Perception Inventory was completed at the first interview with the parents, and the Neonatal Perception Inventory and the Degree of Bother Inventory were filled out during the second visit.

A significant positive relationship between success and parents' perceptions of their problem-solving skills was found to exist. This relationship demonstrated concurrent validity for the What Being the Parent of a New Baby is Like. Pridham and Chang (1985) believed that further testing of the What Being the Parent of a New Baby is Like on a larger and more heterogeneous group was warranted and could be used to assess the meaning of being a mother of an infant, thereby promoting a more positive parent-infant relationship.

Positive interaction between mothers and infants was studied by Brouse (1988) in experimental study to assess maternal role transition during the first 3 weeks post-partum. The study was guided by the following hypothesis:

Primiparas who receive specific information about their infants' behaviors and abilities by means of this nursing intervention would report less maternal anxiety, less maternal concern about infant care, and a more positive adjustment to the maternal lifestyle at 3 weeks postpartum than primiparas who did not receive this information. (Brouse, 1988, p. 167)

The sample consisted of primiparas who delivered full-term infants vaginally and who lived with the infants' fathers. There were 15 participants in the experimental group and 16 in the control group. Each participant in the experimental group received a 30- to 45-minute demonstration of the infants' behaviors and abilities and a discussion of expected infant behaviors on the third postpartum day.

The teaching intervention utilized the Brazelton Neonatal Behavioral Assessment Scale (1973), which was adapted by deleting the elements requiring specialized training. The following elements were included in this scale: infant states, behavioral abilities, defensive abilities, and reflex abilities. Maternal anxiety was measured by the State-Trait Anxiety Inventory (Spielberger, Gorsuch, & Lushene, 1979), and maternal concern about lifestyle adjustment was measured by Schaefer and Mannheimer's Postnatal Research Inventory (1960). All participants completed the instruments at 3 days postpartum and again at 3 weeks postpartum.

Analysis of the data revealed no significant difference between the control and experiment groups at third day

postpartum. But at 3 weeks postpartum the mean anxiety score was greater in the control group than the experimental group. The researcher recommended future research on predictive frameworks which would help nurses identify mothers who may experience difficulty in role transition so that time and resources may be used to facilitate role mastery.

In summary, the major focus of this review is related to the development of a maternal role. The processes involved in the development of the maternal role and attainment of that role can lead to more positive maternal-infant interaction (Brouse, 1988; Mercer, 1985; Pridham & Chang, 1985; Walker et al., 1986a; Walker et al., 1986b). Rubin (1967a), Walker et al. (1986a), and Walker et al. (1986b) assessed the development of the maternal role and maternal identify. Leifer (1977) and Gruis (1977) assessed behavioral and psychological changes associated with pregnancy and postpartal period. These studies suggested that behaviors and emotions which occur during pregnancy and postpartum may be indicative of future mothering behavior and may be important diagnostic aids to assist in identifying problems with mother-child interaction.

Maternal perceptions of self have been found to improve over time, while perceptions of their infants decrease over time (Mercer, 1985; Walker et al., 1986b). Walker et al. (1986b) found that maternal subjective components are not extensively interwoven with maternal behavioral components.

Therefore, evaluation of the subjective component is important to evaluation of the maternal-infant relationship, which was the major focus of this research.

Chapter IV

Research Design and Methodology

This study used a descriptive research design. The main objective of a descriptive study is to present an "accurate portrayal of the characteristics of persons, situations, or groups, and the frequency with which certain phenomena occur" (Polit & Hungler, 1983, p. 613). A descriptive design was appropriate since this study assessed the impact of infant developmental tasks upon maternal role perceptions when their infants are 4 and 8 months of age.

To strengthen the internal and external validity of this research, both cross-sectional and longitudinal samples were included. Mothers in the 4-month longitudinal sample (Group 1) completed the instruments when their infants were 4 and 8 months of age. The subjects in the cross-sectional sample completed the instruments when their infants were either 4 months (Group 2) or 8 months (Group 3) of age.

Variables

The variable of interest in this study was maternal role perception as measured by two instruments, Feelings About the Baby (FAB) (Leifer, 1977) and Gratification in the Mothering Role (GRAT) (Mercer, 1985; Russell, 1974). The

infant's age was the controlled variable. Intervening variables may have included parity, support systems, educational levels, and socioeconomic factors.

Setting, Population, and Sample

The setting for this research was a county in rural northwest Mississippi. All socioeconomic classes and educational levels were represented in this setting. According to the United States Department of Commerce (1985), the county had a population of 21,100 in 1985. The population was 62% and 38% was nonwhite.

The median age for the county residents was 26.2 years, and the median educational level for the county residents was 12 years. In 1985, there were 361 live births to the residents in the selected county. Most professional health care was provided through one community hospital, 10 physicians, 4 dentists, and a public health department (Mississippi Statistical Abstract, 1985).

The population for this study included all mothers with infants 4 or 8 months of age who used the only pediatrician's office in the area. The sample was one of convenience and consisted of all subjects who met the criteria, were willing to participate, and were present during data collection. A total of 27 subjects participated in this study. Groups 1, 2, and 3 contained 9, 10, and 8 subjects, respectively. The total 4-month sample contained 19 subjects, and the 8-month sample contained 17 subjects.

Data-Gathering Process

Following approval of this study by the Human Rights Committee at the Mississippi University for Women, the proposed study was discussed with the pediatrician, and verbal consent was obtained to invite clients from his office to participate. The pediatrician was presented with a copy of the research proposal and the instruments to be used. At this time verbal consent was received to begin data collection within the next month.

Packets for perspective subjects were developed with the assistance of personnel in the pediatrician's office. The packets included the following: a letter of introduction and consent (see Appendix A), the data collection instruments (see Appendices B and C), and a general information sheet (see Appendix D). The packets were left with the office personnel who were given instructions on how to select participants and how to maintain participant confidentiality. All participants' questions were to be directed to the researcher.

As each participant completed the packet, the material was placed in the packet envelope, sealed by the participant, and given to the identified office personnel. The packets were collected weekly by the researcher who then assigned the subjects to Group 1, 2, or 3. Group 1, the longitudinal group, was selected first. This group was contacted by mail 4 months later for completion of the

instruments a second time. The remaining participants were in the cross-sectional sample and were placed in either Group 2 or Group 3. Group 2 included only mothers of 4-month-old infants, and Group 3 included only mothers of 8-month-old infants.

Instrumentation

Two instruments were used to evaluate maternal perceptions, Feelings About the Baby (FAB) (Leifer, 1977) and Gratification in the Mothering Role (GRAT) (Mercer, 1985; Russell, 1974). The FAB is a 10-item, 4-point Likert scale on which mothers rated their feelings, such as "I feel tenderly toward my baby" and "I feel disinterested in my baby." Appropriate responses included Often, Sometimes, Rarely, or Never. The most positive response received a score of 1, and the most negative response a score of 4. Therefore, the total score of 10 was the most positive, and a total score of 40 was the most negative. Mothers with scores between 10 and 20 were considered to have positive feelings about their infants. Mothers with scores between 21 and 40 were considered to have negative feelings toward their infants. Validity for this instrument was demonstrated by Leifer (1977) through congruent interview data and support from a child trait checklist with a sample of 19 primigravidas. Mercer (1985) found the Cronbach alpha reliability to be .51 at 1 month, .65 at 4 months, .64 at 8 months, and .61 at 12 months.

The GRAT is a 14-item checklist on which the mother rated on a 5-point Likert scale the extent to which each statement is true. Sample statements included "feeling closer to mate" and "pride in my baby's development." Ratings ranged from 5 (Not at all) to 1 (Very much). The lower the score, the more positive the response; the higher the score, the more negative the response. A total score of 14 was the most positive and a total score of 70 was the most negative. Mothers with a score between 14 and 35 were considered to have positive perceptions of themselves as a mother. Mothers with scores between 36 and 70 were considered to have a negative role perception. This instrument was developed by Russell (1974) following a content analysis of interview data in which parents discussed positive and negative elements related to parenting. Russell (1974) demonstrated a split-half reliability of .93 with a sample of 271 parents. Mercer (1985) adapted this instrument for a study of 294 mothers by combining two items from one "increased appreciation for family" and "religious tradition" and adding "watching baby grow and learn to do new things." Cronbach alpha reliabilities demonstrated by Mercer (1985) were .80 at 1 month, .78 at 4 months, .78 at 8 months, and .77 at 12 months.

Statistical Analysis

The data were analyzed using dependent t, student's t, and chi-square statistics. The dependent t is a basic

parametric procedure for testing the difference in dependent group means. This method of analysis was used to compare group means of FAB and GRAT for the longitudinal sample. The student's t is a parametric procedure for testing the difference in independent group means. This method of analysis was used to compare group means of FAB and GRAT for cross-sectional samples as well as for comparing longitudinal and cross-sectional samples. Chi-square is a nonparametric test for significance and is used to assess the relationship between two nominal variables (Polit & Hungler, 1987). The FAB and GRAT scores were divided into either positive or negative categories and related to recognition of developmental tasks of stranger reaction and separation anxiety.

Limitations

The limitations of this study were as follows:

1. The study was limited to a small convenience sample located in one geographic location which prevented generalization to other areas.
2. The study was limited to maternal caregivers of infants which prevented generalization to other primary caregivers.

Chapter V

Findings and Analysis of Data

The purpose of this descriptive study was to assess maternal role perceptions when infants were 4 and 8 months of age and to determine the impact of infant developmental task of "social smile," "stranger reaction," and "separation anxiety" impact upon maternal role perception. The following research questions guided this study: Is maternal role perception more positive when the infant is 4 months of age than when the infant is 8 months of age? How does the infant's developmental task of the "social smile" between 2 and 4 months affect maternal role perception? How do the infant's developmental tasks of "stranger reaction" and "separation anxiety" between 6 and 9 months affect maternal role perception?

Barnard's Parent-Child Interaction Model (1979) provided the conceptual framework for this study. Barnard's (1979) model focused on intrapersonal relationships, which were viewed as interactive systems influenced by characteristics of the participants. This study sought to test Barnard's conceptualization of interpersonal relationships by evaluating the impact of infant developmental tasks upon maternal role perceptions.

A total of 27 mothers contacted at a pediatrician's office in a rural Mississippi county comprised the sample. The ethnicity of the sample was 59% Caucasian and 41% Black. The sample was 63% first-time mothers, 18% second time mothers, and 18% third time mothers. The age of the subjects between 17 and 25 years was 56% and between 26 and 35 years was 44%. Labor occurred spontaneously in 97% of the sample with only 4% experiencing no labor. Approximately 85% of subjects delivered vaginally, while 14% had Cesarean sections. Participants reported no major complications during pregnancy, labor, or delivery. In addition, all infants were without physical and mental disabilities. These data are presented in Table 1.

The sample of 27 subjects was divided into longitudinal (Group 1) and cross-sectional (Groups 2 and 3) subsamples. The following percentages reflect the ethnicity for each group: Group 1, 67% Caucasian and 33% Black; Group 2, 40% Caucasian and 60% Black; and Group 3, 75% Caucasian and 25% Black. In Group 1, the infant was a first child for 44%, a second child for 33%, and a third child for 22%. In Group 2, the newborn was a first for 75%, a second for 20%, and a third for 10% of the mothers. In Group 3, the infant was a first child for 75% and a third child for 25%. Approximately 56% of Group 1 were between 17 and 25 years of age, and 44% were between 26 and 35 years. The percentage of women between 17 and 25 years of age in Group 2 was 60%, and

in Group 3 was 40%, while 40% of women in Group 2 and 50% in Group 3 were between 26 and 35 years. These data are found in Table 1.

Maternal role perceptions about self were measured using the instrument, Gratification in the Maternal Role (GRAT) (Mercer, 1985), while maternal perceptions about their infants were measured using the instrument Feelings About the Baby (FAB) (Mercer, 1985). For Group 1 (longitudinal) scores on the GRAT, when infants were 4 months of age, ranged from 16 to 37 with a mean score of 24.11. The scores ranged from 16 to 32 with a mean score 22.78 when the infant was 8 months old. Means from the longitudinal sample were submitted to dependent t analysis at the .05 level of significance with an obtained value of $t(9) = .4779$, $p = .3196$. Scores on the FAB, when the infant was 4 months, ranged from 12 to 17 with a mean of 14.11, and from 13 to 19 when infants were 8 months old with a mean of 15.11. Analysis of the means using a dependent t test statistic revealed $t(9) = 1.2027$, $p = .1233$ which is not significant at the .05 level. These data are reflected on Table 2.

Table 1

Raw Data: Race, Infant's Birth Order, Maternal Age, Method of Delivery, Awareness of Developmental Task, and FAB and GRAT Scores

| Number | Race | Birth Order | Delivery ^a | Age ^b | SS | Tasks ^c | | | | Scores ^d | | | |
|---------|------|-------------|-----------------------|------------------|----|--------------------|----|----|----|---------------------|----|------|---|
| | | | | | | SR | SR | SR | SR | FAB | | GRAT | |
| | | | | | | 4 | 8 | 8 | 8 | 4 | 8 | 4 | 8 |
| Group 1 | | | | | | | | | | | | | |
| 1 | W | 3 | V | 1 | Y | Y | Y | N | 14 | 15 | 31 | 25 | |
| 2 | W | 2 | V | 1 | Y | Y | Y | Y | 14 | 16 | 37 | 32 | |
| 3 | B | 1 | C | 2 | Y | Y | Y | Y | 17 | 19 | 27 | 26 | |
| 4 | B | 1 | V | 1 | Y | N | Y | Y | 13 | 14 | 16 | 16 | |
| 5 | W | 1 | V | 2 | Y | N | N | N | 13 | 13 | 18 | 17 | |
| 6 | W | 3 | V | 1 | Y | Y | N | N | 12 | 14 | 21 | 25 | |
| 7 | W | 2 | V | 2 | Y | N | N | N | 13 | 14 | 25 | 21 | |
| 8 | W | 2 | V | 2 | Y | N | N | N | 16 | 17 | 20 | 19 | |
| 9 | B | 1 | V | 1 | Y | Y | Y | Y | 15 | 14 | 22 | 24 | |

Note: Y = Yes. N = No. ^aDelivery: V = Vaginal. C = Cesarean. bAge: 1 = 17-25. 2 = 26-35. ^cTasks: 4 = 4 months, 8 = 8 months. SS = Social Smile. SR = Stranger Reaction. SA = Separation Anxiety. ^dScores: FAB = Feeling About Baby. GRAT = Gratification in Role.

Table 1 - Continued

| Number | Race | Birth Order | Deliverya | Ageb | Tasksc | | | | Scoresd | | |
|---------|------|-------------|-----------|------|--------|----|----|----|---------|----|------|
| | | | | | SS | SR | SR | SR | FAB | | GRAT |
| | | | | | 4 | 8 | 8 | 8 | 4 | 8 | 4 |
| Group 2 | | | | | | | | | | | |
| 1 | B | 1 | V | 1 | Y | - | - | 17 | - | 16 | - |
| 2 | B | 1 | V | 1 | Y | - | - | 10 | - | 17 | - |
| 3 | B | 1 | V | 1 | Y | - | - | 12 | - | 16 | - |
| 4 | W | 1 | V | 2 | Y | - | - | 17 | - | 23 | - |
| 5 | W | 2 | C | 2 | Y | - | - | 14 | - | 22 | - |
| 6 | W | 1 | V | 1 | Y | - | - | 16 | - | 22 | - |
| 7 | B | 1 | V | 1 | Y | - | - | 17 | - | 26 | - |
| 8 | B | 3 | V | 2 | Y | - | - | 18 | - | 31 | - |
| 9 | B | 1 | C | 2 | Y | - | - | 21 | - | 18 | - |
| 10 | W | 2 | V | 1 | Y | - | - | 15 | - | 31 | - |

Table 1 - Continued

| Number | Race | Birth Order | Delivery ^a | Age ^b | Tasks ^c | | | | Scores ^d | | | |
|---------|------|-------------|-----------------------|------------------|--------------------|----|----|----|---------------------|----|------|----|
| | | | | | SS | SR | SR | SR | FAB | | GRAT | |
| | | | | | 4 | 8 | 8 | 8 | 4 | 8 | 4 | 8 |
| Group 3 | | | | | | | | | | | | |
| 1 | B | 1 | C | 2 | Y | N | N | N | - | 12 | - | 29 |
| 2 | W | 3 | V | 2 | Y | Y | Y | Y | - | 11 | - | 16 |
| 3 | W | 1 | V | 1 | Y | Y | Y | N | - | 12 | - | 27 |
| 4 | B | 1 | V | 2 | Y | Y | Y | Y | - | 25 | - | 14 |
| 5 | W | 3 | V | 2 | Y | N | N | N | - | 14 | - | 17 |
| 6 | W | 1 | V | 1 | Y | Y | Y | Y | - | 16 | - | 30 |
| 7 | W | 1 | V | 1 | Y | N | N | Y | - | 17 | - | 34 |
| 8 | W | 1 | V | 1 | Y | N | N | N | - | 13 | - | 39 |

Table 2

Comparison of GRAT and FAB Scores, Longitudinal Sample

| Age (Months) | <u>n</u> | <u>M</u> | <u>STD</u> | <u>t</u> | <u>p</u> |
|-----------------|----------|----------|------------|----------|----------|
| FAB Scores | | | | | |
| 4 | 9 | 14.11 | 1.62 | 1.2027 | .1233 |
| 8 | 9 | 15.11 | 1.90 | | |
| GRAT Scores | | | | | |
| 4 | 9 | 24.11 | 6.68 | 4.779 | .3196 |
| 8 | 9 | 22.78 | 5.04 | | |

Analysis of data from Groups 2 and 3 (cross-sectional) was done to lend validity to this study. The GRAT scores for Group 2 (4-month-old infants) ranged from 16 to 31 with a mean of 22.20 and for Group 3 (8-month-old infants) ranged from 14 to 39 with a mean of 25.75. Students' t analysis, at the .05 level of significance, revealed t(18) = 1.0126, p = .1633. FAB scores for Group 2 ranged from 10 to 21 with a mean of 15.7, while Group 3 scores ranged from 14 to 39 with a mean of 15.00. Students' t analysis at the .05 level of significance revealed t(18) = .3875, p = .3518. These data are presented in Table 3.

Table 3

Comparison of GRAT and FAB Scores, Cross-Sectional and Longitudinal Samples

| Group | Age (Months) | <u>n</u> | <u>M</u> | <u>STD</u> | <u>t</u> | <u>p</u> |
|-------------|-----------------|----------|----------|------------|----------|----------|
| FAB Scores | | | | | | |
| 2 | 4 | 10 | 15.70 | 3.13 | | |
| 3 | 8 | 8 | 15.00 | 4.54 | 0.3875 | 0.3518 |
| 1 | 4 | 9 | 14.11 | 1.62 | | |
| 2 | 4 | 10 | 15.77 | 3.13 | 1.3658 | 0.0949 |
| 1 | 8 | 9 | 15.11 | 1.90 | | |
| 3 | 8 | 8 | 15.00 | 4.54 | 0.0674 | 0.47362 |
| GRAT Scores | | | | | | |
| 2 | 4 | 10 | 22.20 | 5.69 | | |
| 3 | 8 | 8 | 25.75 | 9.13 | 1.0126 | 0.16332 |
| 1 | 4 | 9 | 24.11 | 6.68 | | |
| 2 | 4 | 10 | 22.20 | 5.69 | 0.6736 | 0.2549 |
| 1 | 8 | 9 | 22.78 | 5.04 | | |
| 3 | 8 | 8 | 25.75 | 9.13 | 0.8444 | 0.2058 |

The GRAT and FAB maternal perception scores at 4 months for Groups 1 and 2 were compared using a student's t at the .05 level of significance. Results for the GRAT were $t(19) = .6734$, $p = .2549$, and for the FAB were $t(19) = 1.3658$, $p = .0949$. The GRAT and FAB scores at 8 months for Group 1 and Group 3 were compared using the student's t at the .05 level of significance. Results of the GRAT were $t(17) = .8444$, $p = .2058$, and for the FAB were $t(17) = .0674$, $p = .4736$. These results are depicted in Table 3.

The GRAT scores ranging from 14 to 35 and FAB scores ranging from 10 to 20 were considered positive maternal perceptions, while GRAT scores ranging from 36 to 70 and FAB scores ranging from 21 to 40 were considered negative maternal perceptions. These scores were correlated to recognition of developmental tasks of stranger reaction and separation anxiety using a chi-square statistic. The chi-square for the FAB scores and separation anxiety was $\chi^2 (1, N = 17) = .9516$, and for the FAB scores and stranger reaction was $\chi^2 (1, N = 17) = .8841$. The chi-square for GRAT scores and separation anxiety was $\chi^2 (1, N = 17) = .5058$ and for the GRAT scores and stranger reaction was $\chi^2 (1, N = 17) = .5058$. None of these chi-square values were significant at the .05 level. These data are reflected in Tables 4, 5, 6, and 7.

Table 4

FAB Scores Correlated to Cognition of Developmental Task--
Separation Anxiety

| FAB | Yes | No | Total |
|----------|--------------------|-------|-------|
| | Separation Anxiety | | |
| | 8 | 8 | 16 |
| | 47.06 | 47.06 | 94.12 |
| Positive | 50 | 50 | |
| Score | 88.89 | 100 | |
| | 1 | 0 | 1 |
| | 5.88 | 0 | 5.88 |
| Negative | 100 | 0 | |
| Score | 11.11 | 0 | |
| Total | 9 | 8 | 17 |
| | 52.74 | 47.06 | 100 |

Note. Chi-square = .004, p = .9516, df = 1.

Table 5

FAB Scores Correlated to Cognition of Developmental Task--
Stranger Reaction

| FAB | Yes | No | Total |
|----------|-------------------|-------|-------|
| | Stranger Reaction | | |
| | 11 | 4 | 11 |
| Positive | 66.71 | 23.53 | 88.24 |
| Score | 73.33 | 26.67 | |
| | 91.67 | 80 | |
| | 1 | 1 | 2 |
| Negative | 5.88 | 5.88 | 11.76 |
| Score | 50 | 50 | |
| | 8.33 | 20 | |
| Total | 12 | 5 | 17 |
| | 70.59 | 29.41 | 100 |

Note. Chi-square = .021. $p = .8841$. $df = 1$.

Table 6

GRAT Scores Correlated to Cognition of Developmental Task--
Separation Anxiety

| GRAT | Yes | No | Total |
|----------|--------------------|-------|-------|
| | Separation Anxiety | | |
| | 7 | 8 | 15 |
| Positive | 41.18 | 47.06 | 88.24 |
| Score | 46.67 | 53.33 | |
| | 87.50 | 88.89 | |
| | 1 | 1 | 2 |
| Negative | 5.88 | 5.88 | 11.76 |
| Score | 50 | 50 | |
| | 12.5 | 11.11 | |
| Total | 8 | 9 | 17 |
| | 47.06 | 52.94 | 100 |

Note. Chi-square = .443. $p = .5058$. $df = 1$.

Table 7

GRAT Scores Correlated to Cognition of Developmental Task--
Stranger Reaction

| GRAT | Yes | No | Total |
|----------|-------------------|-------|-------|
| | Stranger Reaction | | |
| | 8 | 7 | 15 |
| Positive | 47.06 | 41.18 | 88.24 |
| Score | 53.33 | 46.67 | |
| | 88.89 | 87.50 | |
| | 1 | 1 | 2 |
| Negative | 5.88 | 5.88 | 11.76 |
| Score | 50 | 50 | |
| | 11.11 | 12.50 | |
| Total | 9 | 8 | 17 |
| | 52.94 | 47.06 | 100 |

Chapter VI

Outcomes of the Study

Summary

The purpose of this descriptive study was to assess maternal role perceptions when infants were 4 and 8 months of age and to determine if infant developmental tasks, "social smile," "separation anxiety," and "stranger reaction" impact upon maternal perception. The researcher asked the following questions: Is maternal role perception more positive when the infant is 4 months of age than when the infant is 8 months of age? How does the infant's developmental task of "social smile" at 4 months affect maternal role perception? How do the infant's developmental tasks of "stranger reaction" and "separation anxiety" at 8 months affect maternal role perception? Barnard's Parent-Child Interaction Model (1979) and Mercer's (1985) evaluation of the process of maternal role attained during the first year of motherhood provided the conceptual framework for this study.

Maternal role perceptions were measured using the Gratification in the Maternal Role (GRAT) (Mercer, 1985) and Feelings About the Baby (FAB) (Mercer, 1985). Awareness of developmental tasks were achieved through maternal report.

The sample consisted of longitudinal and cross-sectional components with a total of 27 mothers whose infants were 4 or 8 months of age. Group 1, the longitudinal sample, consisted of mothers who completed the instruments when their infants were 4 months and 8 months of age. Both Groups 2 and 3 were cross-sectional samples of mothers who completed the instruments when their infants were either 4 or 8 months of age.

Dependent t , student's t , and chi-square statistics were used to analyze data. No values were significant at the .05 level. The results of this research indicated that maternal role perceptions about self and infant do not change but remain constant at 4 and 8 months postpartum. In addition, recognition of developmental tasks was not correlated to maternal role perceptions.

Discussion

This study attempted to substantiate Mercer's (1985) findings which indicated that maternal feelings about the infant decreased between 4 and 8 months of age while perceptions about the maternal role remained constant. Mercer concluded that the developmental task which occurred at 4 months caused more positive maternal feelings toward the infant and the developmental tasks which occur at 8 months caused more negative maternal feelings toward the infant.

Mercer's (1985) conclusions were supported by Whitehouse (1987) who described three critical periods of

reorganization associated with achievement of developmental tasks and found physical evidence to support these findings. These developmental changes alter the maternal-infant relationship and sometimes lead to problematic behaviors which may lead to a decrease in maternal role competence (Sanders, 1962).

In contrast to Mercer's (1985) findings, this study found that maternal feelings about the baby remained constant at 4 and 8 months in both longitudinal and cross-sectional samples. The differences in findings may be due to sample composition. In Mercer's study, the sample was large ($N = 242$), from an urban area, and included only first-time mothers. In this study the sample was small ($N = 27$), from a rural setting, and not limited to first-time mothers. This researcher proposes that mothers who live in rural settings may have lifestyles, stressors, and family values which are different from mothers who live in urban settings. Also, multiparas have previous experience as mothers and may perceive this infant with more assuredness and comfort than primiparas. The findings by Walker, Crain, and Thompson (1986a) supported the conclusion that multiparas' perceptions concerning self and infant are more positive than primiparas. Further research using larger samples from both urban and rural areas and including both primiparas and multiparas may provide further insight into the development of maternal role as perceived by the mother.

In this research, the finding that maternal perceptions about self remained constant throughout the first year of motherhood corroborated Mercer's (1985) findings. However, Walker et al. (1986a) found that maternal perceptions about self and infant became more positive from birth to 3 months. Methodological differences among the studies may explain the disparity in results. Walker et al.'s (1986a) study was conducted over a short time span (3 months) which may not have allowed maternal role perceptions to stabilize. In addition, different instruments were used to measure maternal role perceptions. While both instruments were designed to measure the same concept, neither one has established validity. Further research to establish validity of the GRAT is indicated.

Mercer (1985) concluded that maternal role perceptions decreased at 8 months due to infant developmental tasks. However, this research failed to find any correlation between maternal role perceptions and maternal recognition of infant developmental tasks. The recognition of developmental tasks may be influenced by the mother's perceptions of a "good" or "bad" baby, and mothers may fail to report what they perceive as a negative developmental task. Stranger reaction and separation anxiety may have been viewed by the mother as negative accomplishments and therefore were not readily reported. The infant's social smile, which may have been viewed as a positive

accomplishment by the mother, was reported by 100% of the sample. Further studies examining the impact of developmental tasks on maternal role perceptions over time are indicated.

While the findings of this study conflicted with those of Mercer's (1985) study, the use of cross-sectional and longitudinal samples lends support to the validity of the findings of this study. It is suggested that future studies include both cross-sectional and longitudinal samples.

Barnard's Parent-Child Interaction Model (1979) provided the conceptual framework for this research. This model views maternal-child relationships as an interactive system which is influenced by characteristics of the participants and which constantly changes to meet the needs of the participants within a given environment. Mercer (1985) proposed that developmental tasks were events which negatively influenced mother-infant relationships. However, this research found no significant relationship in maternal role perception and developmental tasks. Stability in maternal role perceptions were maintained regardless of developmental changes in the infant. Further research using the Barnard model is needed to assess which factors are related to maternal role perceptions.

Conflicting results from several studies do not definitively describe the process of maternal role development; therefore, ongoing research is needed. Until

this process is understood more clearly the Family Nurse Clinician has a responsibility to assess maternal perceptions over time, intervene when negative maternal role perceptions are present, and promote positive maternal role perceptions.

Recommendations

The following recommendations for research and practice are based upon the findings of this study.

1. Replication of this study using a larger randomized longitudinal and cross-sectional sample of primiparas and multiparas from rural and urban settings.

2. Conduction of further research to determine impact of developmental tasks upon the maternal role perception.

3. Conduction of further research to establish the validity of the instrument, Gratification in the Maternal Role.

4. Inclusion of maternal role perception assessment in the clinical practice of Family Nurse Clinicians.

References

- Ainsworth, M., Belhar, M., Waters, E., & Wall, S. (1978). Patterns of attachment: A psychological study of the strange situation. Hilldale, NJ: Erlbaum.
- American Nurses' Association. (1980). Nursing: A social policy statement. Kansas City, MO: Author.
- Anderson, C. (1981). Enhancing reciprocity between mother and neonate. Nursing Research, 30(2), 89-93.
- Baker, J. K., Borchers, D. A., Cochran, D. T., Orcutt, N., Terry, E. G., & Wesolowski, C. A. (1986). In A. Marriner (Ed.), Parent-child interaction model in nursing theorists and their works (pp. 267-280). St. Louis, MO: C. V. Mosby.
- Barnard, K. E. (1966). Symposium on mental retardation. Nursing Clinics of North America, 1, 629-630.
- Barnard, K. E. (1979). Child advocates must help parents, too. The American Nurse, 11, 4.
- Barnard, K. E., & Eyres, S. J. (Eds.). (1979). Child health assessment, part II: The first year of life. Hyattsville, MD: U.S. Department of Health, Education and Welfare.

- Barnard, K. E., & Powell, M. L. (1972). Teaching the mentally retarded child: A family approach. St. Louis, MO: C. V. Mosby.
- Blair, C., & Salerno, O. (1976). The expanding family childbearing. Boston, MA: Little, Brown and Company.
- Brazelton, T. B. (1963). The early mother-infant adjustment. Pediatrics, 30, 931.
- Brazelton, T. B. (1973). Neonatal Behavioral Assessment Scale. Philadelphia, PA: J. B. Lippincott.
- Brouse, J. (1988). Easing the transition to the maternal role. Journal of Advanced Nursing, 13, 167-172.
- Broussard, E. (1979). Assessment of the adaptive potential of the mother-infant system: The neonatal perception inventories. Seminars in Perinatology, 3(1), 91-100.
- Broussard, E., & Hartner, M. (1971). Further considerations regarding maternal perceptions of the first born. In J. Hellmuth (Ed.), The exceptional infant (vol. 2). New York: Brunner/Nayel.
- Carter-Jessup, L. (1981). Promoting maternal attachment through prenatal intervention. Maternal Child Nursing, 6, 107-112.
- Clark, A., & Affonson, D. (1976). Infant behavior and maternal attachment. Maternal Child Nursing, 1(2), 94-99.
- Cline, F. (1979). Lack of attachment in children. Nurse Practitioner, 4(1), 35-36.

- Corrigan, R. (1984). Detecting development discontinuities. In R. Emde & R. Harmon (Eds.), Continuities and discontinuities in development (pp. 98-100). New York: Plenum Press.
- Cranley, M. (1981). Development of a tool for measurement of maternal attachment during pregnancy. Nursing Research, 30, 281-284.
- Curran, D. (1983). Traits of a healthy family. New York: Ballantine.
- Emde, R., Gaensbauer, T. & Harmon, R. (1976). Emotion expression in infancy: A biobehavioral study, Psychological Issues Monogram Series. New York: International Universities Press.
- Erikson, E. (1963). Childhood and society (2nd ed.). New York: Norton.
- Frailberg, S. (1971). How a baby learns to love. Redbook, p. 76.
- Gay, J. (1981). A conceptual framework of bonding. JOGN, 10(6), 441-444.
- Gruis, M. (1977). Beyond maternity postpartum concerns of mothers. The American Journal of Maternal Child Nursing, 2(3), 182-188.
- Kennell, M., & Klaus, J. (1982). Parent-infant bonding (2nd ed.). St. Louis, MO: C. V. Mosby.

- Leifer, M. (1977). Psychological changes accompanying pregnancy and motherhood. Genetic Psychology Monographs, 95, 16-27.
- Mercer, R. (1977). The nurse and maternal tasks of early postpartum. Maternal Child Nursing, 6, 341-345.
- Mercer, R. (1985). The process of maternal role attainment over the first year. Nursing Research, 34, 198-204.
- Mississippi Statistical Abstract. (1985). Mississippi State, MS: Division of Research.
- Newcomb, T. (1961). The acquaintance press (p. 259). New York: Holt, Reinhart and Winston.
- Osgood, C., Suci, S., & Tannenbaum, P. (1957). The measurement of meaning. Urbana, IL: University of Illinois Press.
- Pharis, M. (1978). Age and sex differences in expectation for infants and the parenting role among couples in a first pregnancy and among university students. Unpublished doctoral dissertation, The University of Texas at Austin.
- Polit, B., & Hungler, D. (1983). Nursing research principles and methods (3rd ed.). Philadelphia, PA: Lippincott.
- Price, S. (1977, March 18). Factors influencing reciprocity in early mother-infant interaction. Paper presented at the biennial meeting of the Society for Research in Child Development, New Orleans, LA.

- Pridham, K., & Chang, A. (1985). Parents' beliefs about themselves and parents of a new infant: Instrument development. Research in Nursing and Health, 8, 19-29.
- Rubin, R. (1967a). Attainment of the maternal role, Part 1 processes. Nursing Research, 16, 237-245.
- Rubin, R. (1967b). Attainment of the maternal role, Part 2 models and referrants. Nursing Research, 16, 342-346.
- Russell, C. (1974). Transition to parenthood: Problems and gratifications. Journal of Marriage and the Family, 36, 294-302.
- Sanders, L. (1962). Issues in early mother-child interaction. Journal of the American Academy of Child Psychiatry, 1, 141-166.
- Schaefer, E., & Mannheimer, H. (1960). Dimensions of perinatal adjustment. Paper presented at the annual meeting of the Eastern Psychological Association, New York.
- Spielberger, C., Gorsuch, R., & Lushene, R. (1970). STAI manual for the State-Trait Anxiety Inventory. Palo Alto, CA: Consulting Psychological Press.
- Taylor, L. (1981). Newborn feeding behaviors and attaching. Maternal Child Nursing, 6, 201-202.
- Ubell, E. (1988, February 14). When baby needs a therapist. Parade Magazine.

- United States Department of Commerce. (1985). Statistical abstract of the United States (105th ed.). Washington, DC: Author.
- Walker, L., Crain, H., & Thompson, E. (1986a). Maternal behavior and role attainment during the postpartum period: Stability and change. Nursing Research, 35, 352-355.
- Walker, L., Crain, H., & Thompson, E. (1986b). Maternal role attainment and identity in the postpartum period: Stability and change. Nursing Research, 35, 68-71.
- Whitehouse, H. (1987). How infants achieve self-organization and self-confidence. Maternal Child Nursing Currents, 34, 17-22.

Appendix A

Letter of Information and Consent

Dear Mother:

My name is Teresa Crockett. I am a Registered Nurse conducting a research project about a woman's first year of motherhood. This information will be useful for health caregivers in promoting positive relationships between mothers and their infants.

I am asking you to participate in this study by completing the attached questionnaires which will take about 5 minutes of your time. Your name will not be used and any information that you provide will be kept strictly confidential. There will be no personal risks or benefits if you participate.

Thank you for consideration of this request. If you have any questions about this study, please contact me.

Sincerely,

Teresa B. Crockett

_____ I agree to participate in this research project.

(Signature)

Appendix B

Parenting Checklist

Below are listed some things which some people have experienced since the birth of their child. Please circle the number on the list that best describes the extent each statement has been true for you, at this point in time.

| | <u>Very Much</u> | | <u>Somewhat</u> | | <u>Not at All</u> |
|---|------------------|---|-----------------|---|-------------------|
| 1. Pride in my baby's development. | 1 | 2 | 3 | 4 | 5 |
| 2. Fewer periods of boredom. | 1 | 2 | 3 | 4 | 5 |
| 3. Relationship with relatives closer. | 1 | 2 | 3 | 4 | 5 |
| 4. Increased appreciation for family. | 1 | 2 | 3 | 4 | 5 |
| 5. Increased appreciation for religious tradition. | 1 | 2 | 3 | 4 | 5 |
| 6. Increased contact with neighbors. | 1 | 2 | 3 | 4 | 5 |
| 7. More things to talk about to mate. | 1 | 2 | 3 | 4 | 5 |
| 8. Feeling "closer" to mate. | 1 | 2 | 3 | 4 | 5 |
| 9. Feeling of "fulfillment." | 1 | 2 | 3 | 4 | 5 |
| 10. New appreciation of my own parents. | 1 | 2 | 3 | 4 | 5 |
| 11. Baby fun to play with. | 1 | 2 | 3 | 4 | 5 |
| 12. A purpose for living. | 1 | 2 | 3 | 4 | 5 |
| 13. Enjoy baby's company. | 1 | 2 | 3 | 4 | 5 |
| 14. Watching baby grow and learning to do new things. | 1 | 2 | 3 | 4 | 5 |

Appendix C

Feelings About My Baby

Please answer all of the following items in terms of how you feel right now about your baby. Circle the term that best expresses how you feel.

| | <u>Often</u> | <u>Sometimes</u> | <u>Rarely</u> | <u>Never</u> |
|---------------------------------------|--------------|------------------|---------------|--------------|
| 1. I feel tenderly toward my baby. | 1 | 2 | 3 | 4 |
| 2. I feel annoyed at my baby. | 1 | 2 | 3 | 4 |
| 3. I feel not one way or the other. | 1 | 2 | 3 | 4 |
| 4. I feel protective towards my baby. | 1 | 2 | 3 | 4 |
| 5. I feel giving towards my baby. | 1 | 2 | 3 | 4 |
| 6. I feel playful towards my baby. | 1 | 2 | 3 | 4 |
| 7. I feel disinterested in my baby. | 1 | 2 | 3 | 4 |
| 8. I feel drained by my baby. | 1 | 2 | 3 | 4 |
| 9. I feel curious about my baby. | 1 | 2 | 3 | 4 |
| 10. I feel unaware of my baby. | 1 | 2 | 3 | 4 |

Appendix D

General Information

Mother's Date of Birth: _____/_____/____

Infant's Date of Birth: _____/_____/____

Infant's Birth Order: 1 2 3 4 5 6 7 8

Race: _____ White _____ Nonwhite _____ Other

Any major complication/problems during the pregnancy or labor and delivery process? _____ No _____ Yes. If yes, please explain below.

Comments:

Please mark the appropriate response about your infant today.

| | Yes | No |
|-------------------------|-------|-------|
| Does your infant . . . | | |
| smile spontaneously? | _____ | _____ |
| act shy with strangers? | _____ | _____ |
| reach for objects? | _____ | _____ |
| initiate speech sounds? | _____ | _____ |
| laugh and squeal? | _____ | _____ |
| cry when mother leaves? | _____ | _____ |
| roll over? | _____ | _____ |
| sit without support? | _____ | _____ |